

Curriculum Vitae Professor Liesl J Zühlke

Positions Professor
Paediatric Cardiologist
Director: Children's Heart Disease Research Unit
Vice-President: Extramural Research and Internal Portfolio

Affiliations Division of Paediatric Cardiology
Department of Paediatrics and Child Health

Division of Cardiology
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Date of Birth 10 April 1968

Place of Birth Cape Town, South Africa

Nationality South African

Gender Female

UCT Designation Designated

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1. Personal Statement

This CV details my contributions to research, teaching and learning, clinical service, leadership, management, and social engagement. I believe my career has exemplified **academic excellence**, in combination with a **deep love for child health, community and creating empowering spaces** for colleagues and students to grow and develop. I combine **clinical research and full-time clinical service** with training, epidemiological, clinical and health systems research, and policy development.

I am highly regarded by students, colleagues and graduates as an **effective teacher, mentor and advisor** and have created opportunities for support and supervision **not only for my own students**, but also for students within the faculty, department, and continent. I have successfully **supervised students in their MMed, MPhil, MPH and MSc** degrees, with several graduating **with distinction** and many **publishing their findings** in high-impact journals. I have contributed to undergraduate and postgraduate **book chapters, e-resources** and convened and organised the **first African paediatric basic and advanced echocardiography training** course in 2019. This included securing **substantial funding for African fellows**. I teach on a **diverse set of courses**, including nursing, community outreach, research, and clinical workshops in **South Africa and internationally**.

In 2015, I established the Children's Heart Disease Research Unit (CHDRU) with **independent funding**, which focuses on heart disease acquired in childhood with a focus on areas of need within Africa. I am regarded as a research leader in RHD, both on the continent and internationally, as demonstrated by **lecture invitations at all the national, regional, and premier international cardiology congresses**. I am NRF-C1 rated (2016) and have received **numerous international research awards**, including the prestigious MRCUK/DFID **African Research Leader Award**. I secured the **largest philanthropic funding for RHD** and the **largest grant funding for CHD within Africa** to date. I am also the **national leader for two** large international studies and am President of Reach, an initiative providing scientific and technical support to **global RHD programmes**. I was invited to the Gates Foundation Grand Challenges meeting in Ethiopia in 2019 as an **African "Rising star"**, in recognition of my scientific contribution. My google scholar **h-index is 45, i10 index is 93**, I have **more than 38 000 citations**, including 34 citation classics (over 100 citations, 8 with over 1000 citations), **147 papers on Scopus, 161 in total** and a **field-weighted citation impact of 16.65**. I am listed on SciVal as within the top 5% of research achievers at UCT in my field. I was one of the finalists for the 2020 National Science and Technology Forum (NSTF) annual awards event in partnership with South32, the **"Oscars of Science"** in the researcher category and nominated as the top international scholars in RHD in 2020.

Across my departments, I have occupied positions of leadership, such as **chair of the Continuing Professional Development Committee, chair of the Annual Research Committee** of the Department of Medicine, and I have substantially contributed to the Departmental Research Committee, Postgraduate Research Committee, Space and Planning Committee, and African Paediatric Fellowship Programme (APFP) Committee. However, I have also provided **innovative leadership outside of standard committees** by developing an **anti-harassment policy** within the department, co-leading a **support group for PhD students** within the department, and **developing and obtaining funding for a supported development program for clinicians** within the department. I fully support and am **deeply involved in all transformation endeavours**, including re-memorisation of spaces, and supporting the departmental succession plan.

I have achieved the highest leadership positions within cardiology in South Africa; **President of the Paediatric Cardiac Society of South Africa, President of the South African Heart Association** and am chair of both the Paediatric and Rheumatic Heart Disease Taskforces within the **Pan-African Society of Cardiology**. Of note is my work within advocacy on a global scale. I have presented at the **United Nations Health Assembly** in New York, the **African Union** in Addis Ababa, the **World Health Organization (WHO)** in Geneva and Congo-Brazzaville and was involved in developing the policies against RHD adopted by the **African Union in 2016** and **WHO in 2018**. I believe resolutely in **engaged scholarship** and have produced **innovative** patient initiatives and **education dissemination**.

My commitment to the academic project is paramount, I **fully transcribe to the vision and mission** of the University of Cape Town and am determined to continue **contributing substantially to academia**, while ensuring an **empowering, supportive and growth space** for all, especially those contemplating paediatrics as a career and those supporting the paediatric platform. My strength lies in my **inclusive and collaborative approach**, servant leadership and an exceptionally high **work ethic**. I bring all these to all my endeavours.

2. Qualifications

- MSc | 2018 | London School of Economics
 - Health Economics, Outcomes and Management of Cardiovascular Sciences
- FACC | 2016 | American College of Cardiology
 - Fellow of the American College of Cardiology
- PhD | 2015 | University of Cape Town
 - Dissertation: The outcomes of asymptomatic and symptomatic rheumatic heart disease
 - Supervisors: Prof Bongani Mayosi, Associate Professor Mark Engel
- FESC | 2015 | European Society of Cardiology
 - Fellow of the European Society of Cardiology
- MPH | 2011 | University of Cape Town
 - Clinical Research Methods Track
 - Dissertation: Computer-assisted auscultation as a screening tool for cardiovascular disease: A cross-sectional study
 - Supervisors: Prof Landon Myer, Prof Bongani Mayosi
 - Academic Transcript: **Top percentile**
- Cert Cardiology | 2007 | College of Medicine
 - Paediatric Cardiology
- FC Paeds | 1999 | College of Medicine
 - Fellow of the College of Paediatricians
- DCH | 1996 | College of Medicine
 - Diploma in Child Health
- MBChB | 1991 | University of Cape Town

3. Positions held and details of current position

- Vice-President - Extramural Research and Internal Portfolio (VP-ERIP) | South African Medical Research Council

1 February 2022 - present

The South African Medical Research Council (SAMRC) was founded in 1969 with the directive of improving the health of South Africa's population, through research, development, and technology transfer. The SAMRC's mission is to **advance the nation's health and quality of life and address inequity** by conducting and funding relevant and responsive health research, capacity development, innovation, and research translation. As the Vice President-Extramural Research & Internal Portfolio (VP-ERIP), I will be responsible for enhancing the quality of science and health impact of research that is funded by the SAMRC with an emphasis on cutting edge, basic and solution driven research. In my capacity as VP-ERIP, I will work with President and CEO, Professor Glenda Gray, and the Executive Management Committee (EMC), to formulate and implement research strategy and ensure integration of the research conducted and funded by the SAMRC in both its intramural and extramural research units.

- Acting Deputy-Dean for Research | Faculty of Health Sciences | University of Cape Town

1 May 2021 - 31 January 2022

The Faculty of Health Sciences (FHS) strives to advance research excellence within the context of the mission of the FHS and UCT, and thereby improve UCT's standing as a research-led institution, with the ultimate goal of **improving the health of the people of South Africa and beyond**. As the Acting Deputy-Dean of Research, I aimed to support researchers and the research endeavour to affect change in communities through responsive research of excellence. One critical area was taking on board UCT's transformation vision and transforming the social and health systems impact of research. Transformation in terms of UCT researchers: who they are, where they come from, the type of research they do and who they do it with was identified as a priority. The goal was capacity building and ensuring a cadre of diverse, socially engaged scholars who will lead research into the future. It is necessary to transform how we position research in all three spheres: the researcher, the type of research, and the communities and participants that are impacted by research. For me, this meant achieving an African research agenda, with people and values at its heart.

- Paediatric Cardiologist | Department of Paediatric Cardiology | Red Cross War Memorial Children's Hospital, Cape Town

2016 - present

I occupy a full-time clinical post. My time is divided between clinical responsibilities at both Groote Schuur and Red Cross Children's Hospitals, 16 research hours a week and a full after-hours roster. I have developed a transitional clinic at Red Cross Children's Hospital and work in a Combined Cardio-Obstetric Clinic and Grown-Up Congenital Heart Disease Clinic, both of which I was instrumental in starting and maintaining, and both of which are unique to South Africa, if not to Africa.

- Director | Children's Heart Disease Research Unit

2015 - present

I established The Children's Heart Disease Research Unit (CHDRU) in 2015 with the goals to **conduct, promote and support children's heart research on the African continent, facilitate Implementation Science, and provide postgraduate supervision and training in children's heart research**. The overarching vision, mission and values of this unit are those of the University of Cape Town and the Department of Paediatrics and the Institute of Child Health, as our primary affiliations. Our vision - integrating research and clinical practice to improve the lives of all with congenital and paediatric heart disease and mission - conducting innovative, patient-centred and accountable research with the focus on African areas of need. Currently the unit is in its seventh full year, it has full- and part-time staff, multiple research collaborations, has published **over 90 articles and eight book chapters** since its inception, and graduated **three MPH, four MSc, three MPhil and four MMed** students. Capacity building, for women and people of colour in particular, implementation, and patient and community engagement remain key priority areas.

- Senior Research Officer/Post-doctoral Fellow | University of Cape Town

2015 - 2016

- Honorary Senior Lecturer | Paediatric Cardiology

2008 - 2016

- Clinical Coordinator and Researcher | ASAP programme
2008 - 2016
- Senior Specialist Paediatric Cardiology | Department of Paediatrics and Child Health | Red Cross War Memorial Children's Hospital, Cape Town
2007 - 2008
- Senior Registrar | Department of Paediatrics and Child Health | Red Cross War Memorial Children's Hospital, Cape Town
2006 - 2007
- Senior Registrar | Uniklinikum Düsseldorf | Düsseldorf, Germany
2004 - 2006
- Senior Registrar | Department of Paediatrics and Child Health | Red Cross War Memorial Children's Hospital, Cape Town
2000 - 2002

4. Teaching and learning

4.1 Undergraduate teaching per year

Year	Course Code	Lectures	Clinical teaching	Total
2020	MBChB II	1		1
2019	MBChB II	1		1
	MBChB V	1 per rotation		4
	MBChB VI		2–4 hrs per week	40 hrs
2018	MBChB II	1		1
	MBChB V	1 per rotation		4
2017	MBChB II	1		1
	MBChB V	1 per rotation		4
2016	MBChB II	1		1
	MBChB IV	1 per rotation		4
	MBChB V	1 per rotation		4

Additional teaching at undergraduate level

Year	Teaching	Lectures
2015–2019	Basic Life Support (BLS) Paediatric Life Support (PLS) Advanced Paediatric Life Support (APLS)	Entire Course Instructor
2009–present	All medical schools in the country, Ethiopia, Zambia, Namibia, Yemen and Australia	<u>Innovative teaching method:</u> A DVD developed under my direction and management, focusing on the stories of patients, has been incorporated into medical school teaching and more than 5 000 views on YouTube and more than 10 000 views (extended version).
2016–2019	Rheumatic Heart Disease curriculum “Open Lecture”	Developed and submitted an open lecture on rheumatic heart disease on a SlideShare forum with more than 6 000 views from over 40 countries with continued email queries and interactions.
2016–2019	Book chapters	<i>Hurst’s the Heart (14e)</i> and the <i>ESC Textbook of Cardiovascular Medicine</i> are highly read cardiology manuals and as such are sources of teaching and training for both undergraduate and postgraduate students. The most recent book on RF/RHD will also be an international resource. The chapter on “Drugs and the Heart” has been downloaded more than 600 times and the paediatric textbook <i>Red Book</i> is a nationally recognised educational resource.

2018–2019	Electronic resources	<p>I have written two chapters for the UpToDate series:</p> <ul style="list-style-type: none"> • Clinical manifestations and diagnosis of rheumatic heart disease: 35 896 views http://bit.ly/2Wds6sV • Management and prevention of rheumatic heart disease: 18 077 views http://bit.ly/2WH8XUi
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4.2 Postgraduate teaching

Year	Course Code	Lectures (hrs)	Tutorials	Total
2017–2019	MPH	2	Interactive lecture	2
	Dip in Palliative Medicine	2	Cardiology and Palliative Care	2
	PG Diploma in Community and General Paediatrics	1	Epidemiology	1
		1	Optimising care for long-term health conditions in childhood	1
	Master of Nursing in Child Nursing	2	Rheumatic heart disease (RHD) - interactive workshop RHD-interactive workshop	2
	Community Nursing program	2	Congenital Heart Disease	2
2010–2019	MPH	2	Interactive lecture	2
	Clinical Research Methods	Multiple	Cape Town, Zambia, Ethiopia, Namibia	Multiple
	Echo Master Classes	Multiple	Cape Town, Zambia, Ethiopia, Namibia, other	Multiple
	Investigator Master Classes	Multiple	Cape Town, Zambia, Ethiopia, Namibia, REMEDY sites (14 countries)	Multiple
	Community health worker and community health nurses training programme	Multiple	Cape Town, School nurses, community health nurses	Multiple

Table 1. List of visitors to our Unit in past five years:

Year	Surname	Name	Title	Organisation	Topic	Country
2020	Moons	Philip	Prof	University of Leuven * Co-author	ADOLE7C: Transition from Paediatric to Adult Cardiac Care	Belgium
2020	Weberuss	Heidi	Dr	Technical University of Munich	Exercise and Children with CHD	Germany
2020	Bratt	Ewa-Lena	Prof	University of Gothenburg	ADOLE7C: Transition from Paediatric to Adult Cardiac Care	Sweden
2019	Yamikani	Chimalezeni	Dr	University of Malawi, Blantyre, Malawi	PROTEA Workshop and Think Tank	Malawi
2019	Aliku	Twalib	Dr	Uganda Heart Institute, Kampala, Uganda	PROTEA Workshop and Think Tank	Uganda
2019	Erio	Tusa	Ms	National Institute of Medical Research, Mwanza, Tanzania	PROTEA Workshop and Think Tank	Tanzania
2019	Mhangami	CP	Ms	Windhoek Central Hospital, Windhoek, Namibia	PROTEA Workshop and Think Tank	Namibia
2019	Wilson	Nigel	Prof	Te Kupenga Hauora Maori, The University of Auckland, Auckland, New Zealand	PROTEA Workshop and Think Tank	New Zealand
2019	Mtwa	Julius	Prof	University of Botswana, Gaborone, Botswana	PROTEA Workshop and Think Tank	Botswana
2019	Awases	Antoinette	Dr	Windhoek Central Hospital, Windhoek, Namibia	PROTEA Workshop and Think Tank	Namibia
2019	Mbakwem	Amam	Prof	University of Lagos, Lagos, Nigeria	PROTEA Workshop and Think Tank	Nigeria
2019	Subahi	Saad	Dr	President PASCAR, Khartoum, Sudan	PROTEA Workshop and Think Tank	Sudan
2019	Eita	Vada	Ms	Windhoek Central Hospital, Windhoek, Namibia	PROTEA Workshop and Think Tank	Namibia
2019	Agapitus	Ndatiyaroo	Dr	Windhoek Central Hospital, Windhoek, Namibia	PROTEA Workshop and Think Tank	Namibia
2019	Verstappen	Amy	Ms	Global Arch Program	PROTEA Workshop and Think Tank	USA
2019	Mocumbi	Ana Olga	Prof	Mozambique Institute for Health Education and Research, Maputo, Mozambique	PROTEA Workshop and Think Tank	Mozambique
2019	Anderson	Aneka	Prof	Te Kupenga Hauora Maori, The University of Auckland, Auckland, New Zealand	PROTEA Workshop and Think Tank	New Zealand
2019	Sikwa	Inige	Ms	BEAT RHD Zambia, University Teaching Hospital, Lusaka, Zambia	PROTEA Workshop and Think Tank	Zambia
2019	Lichucha	Edna	Dr	Mozambique Institute for Health Education and Research, Maputo, Mozambique	PROTEA Workshop and Think Tank	Mozambique
2019	Nunes	Maria Carmina	Dr	University of Aveiro, Sao Paulo, Brazil	PROTEA Workshop and Think Tank	Brazil
2019	La Vincente	Sophie	Dr	Reach, Geneva, Switzerland	PROTEA Workshop and Think Tank	Switzerland
2019	Mwangi	Jeremiah	Mr	Reach, Geneva, Switzerland	PROTEA Workshop and Think Tank	Switzerland
2019	Sanyahumbi	Amy	Dr	Baylor College of Medicine	PROTEA Workshop and Think Tank	Malawi

2019	Musuku	John	Dr	BEAT RHD Zambia, University Teaching Hospital	PROTEA Workshop and Think Tank	Zambia
2019	Mtaja	Agnes	Dr	BEAT RHD Zambia, University Teaching Hospital	PROTEA Workshop and Think Tank	Zambia
2019	Kalima	Nawa	Dr	BEAT RHD Zambia, University Teaching Hospital	PROTEA Workshop and Think Tank	Zambia
2019	Machila Kapama	Elizabeth	Ms	BEAT RHD Zambia, University Teaching Hospital	PROTEA Workshop and Think Tank	Zambia
2019	Zheleva	Bistra	Ms	Children's Heart Link, Minneapolis	PROTEA Workshop and Think Tank	UAS
2019	Pulle	Jafes	Mr	Uganda Heart Institute	PROTEA Workshop and Think Tank	Uganda
2019	Katusiime	Christine	Ms	Uganda Heart Institute	PROTEA Workshop and Think Tank	Uganda
2019	Mugaba	Proscovia	Dr	Uganda Heart Institute	PROTEA Workshop and Think Tank	Uganda
2019	Namuyonga	Judith	Dr	Uganda Heart Institute	PROTEA Workshop and Think Tank	Uganda
2019	Carapetis	Jonathan	Prof	Telethon Kids Institute * Co-author	PROTEA Workshop and Think Tank	Australia
2019	Excler	Jean-Lous	Dr	International Vaccines Initiative, Seoul	PROTEA Workshop and Think Tank	South Korea
2018	Bratt	Ewa-Lena	Dr	University of Gothenburg * Co-author	ADOLE7C: Transition from Paediatric to Adult Cardiac Care	Sweden
2018	Mwangi	Jeremiah	Mr	Reach	Executive Director of Reach	Switzerland
2018	Jamal	Keila	Ms	Moz Inst for Health Education & Research (MIHER)	RHD Action Small Grant Winner	Mozambique
2018	Anwer	Shehab	Dr	Magdi Yacoub Heart Foundation	PROTEA Database Consultant	Egypt
2017	Cottrell	Jennifer	Ms	Visiting Churchill Scholar	RHD	Australia
2017	Keavney	Bernard	Prof	University of Manchester * Co-author	CHD Protea	UK
2017	Revell	Alastair	Dr	University of Manchester	CHD Protea	UK
2017	Keshmiri	Amir	Dr	University of Manchester	CHD Protea	UK
2017	Weberruss	Heidi	Dr	Technical University of Munich	Exercise and Children with CHD	Germany
2017	Karunaratne	Radhini	Dr	University College London	Paediatric Registrar	UK
2017	Boladuadua	Sai	Dr	Fiji Public Health Physician/Cure Kids NZ	RHD Action Small Grant Winner and Emerging Leaders Program	Fiji
2017	Auala	Tangeni	Dr	Windhoek Central Hospital * Co-author	RHD Action Small Grant Winner and Emerging Leaders Program	Namibia
2017	Jensen	Neusa	Dr	Moz Inst for Health Education & Research (MIHER)	Emerging Leaders Program	Mozambique
2017	Moons	Philip	Prof	University of Leuven * Co-author	ADOLE7C: Transition from Paediatric to Adult Cardiac Care	Belgium
2017	Mwangi	Jeremiah	Mr	World Heart Federation	Emerging Leaders Program	Switzerland
2016	Weberruss	Heidi	Dr	Technical University of Munich	Exercise and Children with CHD	Germany
2016	Bratt	Ewa-Lena	Dr	University of Gothenburg	ADOLE7C: Transition from Paediatric to Adult Cardiac Care	Sweden
2016	Moons	Philip	Prof	University of Leuven	ADOLE7C: Transition from Paediatric to Adult Cardiac Care	Belgium
2016	Forcello	Jessica	Dr	University of Montreal Medical Centre	Cardiac Surgery Needs Assessment (Select African countries)	Canada

*** Co-author**

2016	Prendergast	Emily	Ms	Cambridge University – Medical Student	Capacity Building Assessment of REMEDY Project	UK
				* Co-author		
2016	Ngongo	Belinda	Ms	Medtronic Philanthropy	Listen to my heart patient event/Qual Research Workshop	South Africa
2016	Bauterine	Flavia	Ms	Uganda Heart Institute	Listen to my heart patient event/Qual Research Workshop	Uganda
2016	Adolff	Priscillah	Ms	Polokwane Provincial Hospital	Listen to my heart patient event/Qual Research Workshop	South Africa
2016	Nkadimeng	Confidence	Ms	Polokwane, Limpopo Patient Rep	Listen to my heart patient event/Qual Research Workshop	South Africa
2016	Shimbambo	Tlangelani	Ms	Polokwane, Limpopo Patient Rep	Listen to my heart patient event/Qual Research Workshop	South Africa
2016	Verstappen	Amy	Ms	Children's Heart Link	Listen to my heart patient event/Qual Research Workshop	USA
				* Co-author		
2016	Erio	Tusa	Ms	National Institute of Health Research (Mwanza)	Listen to my heart patient event/Qual Research Workshop	Tanzania
2016	Stafford	Renae	Dr	Touch Foundation RHD Action TZ	Listen to my heart patient event/Qual Research Workshop	Tanzania
2016	Ssinsabulya	Isaac	Dr	Uganda Heart Institute	Listen to my heart patient event/Qual Research Workshop	Uganda
2016	Markbreiter	Joanna	Ms	World Heart Federation	Listen to my heart patient event/Qual Research Workshop	Switzerland
				* Co-author		
2016	White	Alastair	Mr	World Heart Federation	Listen to my heart patient event/Qual Research Workshop	Switzerland
				* Co-author		
2016	Read	Clancy	Dr	Telethon Kids Institute	Listen to my heart patient event/Qual Research Workshop	Australia
				* Co-author		
2016	Scheel	Amy	Ms	Children's National Medical Center	Listen to my heart patient event/Qual Research Workshop	USA
				* Co-author		
2016	Mitchell	Alice	Dr	Menzies	Listen to my heart patient event/Qual Research Workshop	Australia
				* Co-author		
2016	Johnson	Tim	Mr	Reach/RHD Action/ Telethon Kids Institute	Listen to my heart patient event/Qual Research Workshop	Australia
				* Co-author		
2016	Tulloch	Nate	Dr	University of Washington	RHD Stakeholders Systematic Review	USA
				* Co-author		
2016	Sanyahumba	Amy	Dr	Baylor University	Listen to my heart patient event/Qual Research Workshop	Malawi
2015	Watkins	David	Dr	University of Washington	Reach RHD Action Multiple Visits	USA
				* Co-author		

4.3 Personal supervision

	PGDip	MMed	MSc	MPhil	MPH	PhD	Total
Current	1	4	0	0	0	4	9
Graduated	0	4	4	3	4	0	15
Deregistered	0	0	1	0	1	0	2
Total	1	8	5	3	5	4	26

Details:

Name	Degree	Race	Gender	Primary	Co-	Year of First registration	Grad Yr/ Current	Comments
Mr R Seletani	MSc	B	M		X	2014	2017	With distinction
Dr Blanche Cupido	MPhil	C	F	X		2015	2017	With distinction
Dr H Benjeddi	MPH	A	F		X	2016	2018	With distinction
Ms Lisa Telford	MPH	W	F	X		2016	2018	With distinction
Dr Fenny Shidika	MPhil	B	F	X		2016	2018	Graduated
Ms Jessica Abrams	MPH	W	F	X		2017	2019	With distinction
Ms Sithembile Cembi	MPH	B	F	X		2018	2019	Deregistered
Ms Muna Abulkasim	MSc	C	F		X	2018	2020	With distinction
Mr Liam Swanson	MSc	W	M	X		2019	2020	With distinction
Dr Mark Willoughby	MPhil	W	M	X		2018	2020	Graduated
Dr Fefekazi Mpisane	MMed	B	F	X		2018	2020	With distinction
Dr Ryan Moore	MMed	W	M	X		2018	2020	With distinction
Ms Bianca de Koning	MSc	W	F		X	2018	2020	Deregistered
Ms Nicky Saacks	MSc	W	F	X		2019	2021	With distinction
Dr Sindiswa Makete	MMed	B	F	X		2019	2021	Graduated
Dr Puleng Tlopo	MMed	B	F		X	2018	2021	Graduated
Dr Thomas Aldersley	MPH	W	M	X		2020	2022	With distinction
Dr Derrik du Toit	MMed	W	M	X		2018	Current	Analysis
Dr Adila Dawood	MMed	C	F	X		2018	Current	Data
Dr Natasha Rhode	PhD	C	F		X	2018	Current	Data
Dr Andre Brooks	PhD	W	M	X		2018	Current	HREC
Ms Vivienne Norman	PhD	W	F		X	2019	Current	Data
Ms Hlengiwe Moloji	PhD	B	F	X		2019	Current	Data
Dr Lindsay Petersen	MMed	C	F		X	2020	Current	Data
Dr Mercy Ng'eno-Owino	PGDip	B	F	X		2021	Current	Data

Detailed list:Graduated:

- MSc (Med) in Biomedical Engineering | Mr R Seletani | **Awarded with Distinction 2017**
“Development and clinical validation of a hybrid phono-electrocardiogram stethoscope”
- MPhil in Cardiology | Dr B Cupido | **Awarded with Distinction 2017**
“Prevalence, characteristics and additional stroke risk stratification: An analysis of the atrial fibrillation cohort in the REMEDY study”
- MSc in Public Health | Dr H Benjeddi | **Awarded with Distinction 2018**
“Evidence for diagnostic methods for congenital heart disease in low- and middle-income countries”

- MPH in Epidemiology | Ms L Telford | **Awarded with Distinction 2018**
“Standard echocardiography versus handheld echocardiography for the detection of subclinical rheumatic heart disease: A systematic review”
- MPhil in Paediatric Cardiology | Dr F Shidika | **Awarded 2018**
“A South-South partnership to provide cardiac surgery”
- MPH in Epidemiology | Ms J Abrams | **Awarded with Distinction 2019**
“Integrating the prevention and control of rheumatic heart disease into country health systems: A systematic review”
- MSc (Med) in Medicine | Ms M Abulkasim | **Awarded with Distinction 2020**
“Establishment of the Libyan Breast Cancer Registry”
- MSc.Eng in Computational Biomechanics | Mr L Swanson | **Awarded with Distinction 2020**
“Developing an open-source pipeline for a patient specific clinical application of computational fluid dynamics studies in children with congenital heart disease”
- MPhil in Paediatric Cardiology | Dr M Willoughby | **Awarded 2020**
“Infant and childhood infective endocarditis in the Western Cape, South Africa: A retrospective review”
- MMed in Paediatrics | Dr F Mpisane | **Awarded with Distinction 2020**
“Post-cardiac surgery sternal wound sepsis burden, risk factors and outcomes at Red Cross War Memorial Children’s Hospital, Cape Town, South Africa: A five-year experience”
- MMed in Paediatrics | Dr R Moore | **Awarded with Distinction 2020**
“INR monitoring in children: Comparing the accuracy of portable point-of-care monitors to standard of care laboratory monitoring at Red Cross War Memorial Children’s Hospital”
- MSc in Cardio-genetics | Ms N Saacks | **Awarded with Distinction 2021**
“Investigating the genetics of congenital heart disease in South Africa”
- MMed in Paediatrics | Dr S Makete | **Awarded 2021**
“Clinical characteristics and outcomes of children with rheumatic heart disease”
- MMed in Paediatrics | Dr P Tlopo | **Awarded 2021**
“Retrospective review of one year of outpatients at Red Cross War Memorial Children’s Hospital, Cape Town, South Africa: A five-year experience”
- MPH in Epidemiology | Dr T Aldersley | **Awarded with Distinction 2022**
“Partnerships in congenital heart disease in Africa: A prospective, multicentre registry”

Current:

- MMed in Paediatrics | Dr D du Toit
“Outcomes following neonatal cardiac surgery in a tertiary centre”
- MMed in Paediatrics | Dr A Dawood
“Pericardial Effusions in the Paediatric Population: Causes and Outcomes of Non-Surgical Pericardial Effusions at Red Cross War Memorial Children’s Hospital in Cape Town, South Africa: A Review”
- PhD | Dr N Rhode
“Sudden Unexpected Infant Deaths in a peri-urban setting in South Africa”
- PhD | Dr A Brooks
“A strategy of high-risk definitive correction is appropriate for a threshold country in terms of outcomes and cost expenditure”
- PhD | Ms V Norman
“Feeding and swallowing difficulties in young children with congenital heart defects: Prevalence, outcomes and parent support”
- PhD | Ms H Moloi
“Developing a scorecard for the World Health Assembly resolution on rheumatic heart disease”
- MMed in Paediatrics | Dr L Petersen
“Nutritional Assessment of Children Undergoing Cardiac Surgery”
- MPhil in Paediatric Cardiology | Dr M Ng’eno Owino
“Early extubation in children following cardiac surgery: Four-year institutional experience”

Deregistered:

- MPH in Social and Behavioural Sciences | Ms S Cembali
“Barriers and facilitators for the successful transition from paediatric to adult care for patients with chronic cardiac conditions.”
- MSc in Cardio-genetics | Ms B de Koning
“The known genetic component of congenital heart disease in South Africa”

4.4 External examining at undergraduate level

None

4.5 External examining of dissertations/theses or postgraduate examinations

- Examiner for the Certificate in Paediatric Cardiology examination June 2021
- Honorary Guest and speaker at University of Free State Department of Paediatric Research Days 2019
- Examiner for the Certificate in Paediatric Cardiology examination April 2019
- Examiner for the Certificate in Paediatric Cardiology examination May 2016
- Moderator for the Certificate in Paediatric Cardiology examination September 2016
- Observer for the Certificate in Paediatric Cardiology examination 2009
- Examiner for PhD thesis - Candidate: Ms E Russell, Monash University, Australia 2017
“Improving outcomes for rheumatic heart disease in indigenous populations”
- Examiner for PhD thesis - Candidate: Ms R Smith, University of Pretoria, South Africa 2017
“Effect of cardiac surgery in young children with congenital heart disease on parenting stress in central South Africa: Initial outcomes
- Examiner for Master’s thesis - Candidate: Dr S Bika, Wits University, Johannesburg 2018
“Does the use of Microplegia significantly improve outcomes in paediatric congenital heart surgery?”
- Examiner for PhD thesis - Candidate: Dr R Webb, New Zealand 2019
“Outcomes of asymptomatic rheumatic heart disease in indigenous populations”

4.6 Other, e.g. adult/community education and mentorship

- I was nominated to take part in the part of Adcock Ingram OTC/News24 - Celebrating the next generation of Brave initiative for the mentorship of UCT medical student Cameron Joseph.
- Excellent community educator with regular links to multiple community organisations.
- Strong advocate for both rheumatic and congenital heart disease including personal appearances at schools, hospitals, and community centres.
- Initiated, co-ordinated and addressed several continuing medical education workshops for school health nurses in the Western Cape – one at the River Club, Mowbray, one at Karl Bremer Hospital and another at Worcester Nursing college. In addition, instrumental in feedback sessions to nurses involved in research at local community clinics, patients at local and hospital settings and community health forums in Langa and Bonteheuwel.
- Regular talks at local schools, e.g. Forres Preparatory School, Westerford High School, and Langa High School. Talks on science, technology, and engineering as a career for women, congenital heart disease and cardiovascular health.
- Contributor to school health days in the Vanguard and Langa communities.
- Speaker at Discovery Alumni Health Conference on academic pathways and health.
- Speaker, contributor, writer, and interviewee on several media platforms including **print media** (*Life* magazine, *Fair Lady*, *Your Family*, *Women’s Health*, *Your Baby*, *Cape Town Child Magazine*, *Drum*), **radio** (local and national radio stations) and **TV** (*Espresso*, *Hectic Nine-9*, *Afternoon Express*) on various topics, including congenital heart disease, rheumatic heart disease and cardiovascular health.
- Regular contributor to the Heart and Stroke Foundation website, as well as moderator of Paediatric Cardiac Society of South Africa (**1 836 likes on Facebook**) and South African Heart Association websites, **Facebook** (**14 406**) and **Twitter** feeds (**685**) with content and information.
- Obtained funding for professional video of pulse-oximetry screening study, which resulted in YouTube videos that include the POPSicle study (**11 107 people reached**), World Congress of Cardiology (195

people reached), and Twitter feeds of [KidsHeartSA](#) and [RHDAfrica](#) (with **890** and **156** followers respectively).

- **I am strongly involved in social media and community outreach** and am convicted to empowering patients living with RHD and CHD. I have contributed to several articles for Conversation Africa <https://bit.ly/2CdKhIA> and created several patient documents and information booklets. I have organised four "Listen to my Heart" events focused on increasing awareness of research findings among RHD and CHD families, which is also the subject of a recent [publication](#) in the *European Heart Journal*.
- I am a **regular communicator in the lay press** <https://bit.ly/2Nyt3z>, I have written several media articles <https://bit.ly/2QOI5v7>, spoken often on television <https://bit.ly/2A6R6u4> and radio <https://bit.ly/2NEHwSn> with consistent messaging as a CHD and RHD advocate, as well as a consistent advocate for women in health <https://bit.ly/2vvZdxk>. I have developed a UCT-hosted website to share details of current research and host resources related to both research projects and capacity building www.chdru.uct.ac.za.
- The Resolution on Rheumatic Fever and Rheumatic Heart Disease was written by a group of governments - led by New Zealand supported by South Africa and Namibia - and is accompanied by a summary report from WHO calling for a "coordinated global response" to tackle RHD. I **represented South Africa at the event as the newly-elected President of Reach** with the WHF President-elect Prof Karen Sliwa-Hahnle, director of the Hatter Institute. Together we are working very closely with all stakeholders to ensure that governments and the World Health Organization fulfil their commitment to take action on this preventable disease. The policy was adopted in May 2018.
- **World Heart Day is celebrated on 29 September every year** and is aimed at drawing people's attention to heart illness and the range of associated health issues. The day is commemorated to promote different preventative steps and changes in lifestyle to avoid cardiovascular diseases, like heart attack, stroke, heart failure and any other condition related to the same. On average, more than 17 million people die from heart-related illnesses every year. This is more than that of people who die from HIV, malaria, and cancer. The first World Heart Day was launched in 2000 by the World Heart Federation. **World Heart Day is celebrated every year at the Red Cross War Memorial Children's Hospital and nationally with the help of the CHRDU staff.** Radio, television, and print media information is typically shared and disseminated.
- We have also managed to include **Congenital Heart Disease Awareness Week** on the national health calendar. We celebrate this day throughout the country and across the world, which has again resulted in several reports on **social media platforms**.
- **I was one of the designated speakers for Soapbox Science (over 100 applications received for 10 speaking slots), a novel public outreach platform for promoting women scientists and the science they do.** These events transform public areas into an arena for public learning and scientific debate; they follow the format of London's Hyde Park Speaker's Corner, which is historically an arena for public debate. This last event was held at the V&A Waterfront in September 2019.
- Finally, all adult and community engagement **is in close collaboration with patient and family groups.** Last year our events were planned together with the plan to allow community groups to lead the planning in the following years.

5. Research

5.1 Summary of achievements

NRF rating	C1 (2016)	
Scopus h-index	39	
Scopus Citations	27 596	
Google Scholar Profile		
h-index	45	
i10-index	93	
Citations	38 724	
Number of citation classics (papers cited at least 100 times)	34	
Most citations	7796*	
Other notable research achievements	MRC/Dfid African Research Leader Award	Awarded 2018
	NSTF Finalist	2020
Publications in top 10% journals (2017-2021)	56.20%	
Publications in top 10% most-cited journals (2017-2021)	34.40%	
Field-weighted citation Impact (2017-2021)	16.65	
	Top UCT author in RHD during the period 2013–2017	Two as first author dealing with congenital and rheumatic heart disease in Africa

Overall research performance



Publications by Subject Area

Pie Chart

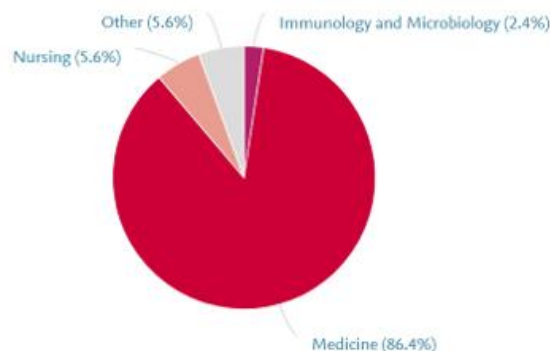


Figure 1. SciVal Performance: 2016–2021

5.2 Publications summary

Journal	Papers	IS ^a	IF ^b	H-Index	Ranking
Am Heart J	2	4.11	4.749	193	
Ann Pediatr Cardiol	2	0.70		23	
Ann Thorac Surg	1	2.45	4.330	207	
Arch Dis Child	1	2.26	3.801	153	
Asian Cardiovasc Thorac Ann	1	0.51		28	
BMC Cardiovasc Disord	3	2.00	2.298	61	
BMC Health Serv Res	1	2.75	2.655	122	
BMC Infect Dis	1	3.63	3.090	112	
BMC Pediatr	1	2.44	2.125	83	
BMC Public Health	1	3.98	3.295	159	
BMJ Open	6	2.86	2.692	121	
Bull World Health Organ	1	5.42	9.408	177	
Can J Cardiol	1	3.07	5.352	97	
Cardiol Young	6	0.87	1.093	56	
Cardiovasc Diagn Ther	1	2.08	2.845	28	
Cardiovasc J Afr	11	0.60	1.167	38	
Cardiovasc Res	1	7.42	10.787	228	
Chinese Circulation Journal	1				
Circulation	2	14.18	29.690	630	3 in Cardiology*
Clin Epidemiol	1	5.18	4.790	63	
Clin Infect Dis	1	9.75	9.079	353	
Clin Proteomics	1	4.82	3.988	36	
Congenit Heart Dis	1	2.33	2.007	46	
Curr Cardiol Rep	2	3.60	2.931	54	
Curr Treat Options Cardiovasc Med	1	1.87		33	
Drug Deliv Transl Res	1	5.80	4.617	46	
Eur Heart J	6	6.51	29.983	312	9 in Cardiology*
Eur Heart J Qual Care Clin Outcomes	2	3.55	4.370	24	
Eur J Cardiothorac Surg	2	2.97	4.191	139	
Front Bioeng Biotech	1	5.66	5.890	59	
Front Cardiovasc Med	2	5.05	6.050	44	
Front Pediatr	3	3.42	3.418	48	
Glob Heart	14	2.33	3.426	40	
Glob Public Health	1	3.57	2.396	48	
Heart Asia	1	1.75		14	
Heart	5	3.80	5.994	189	
Int J Cardiol	8	2.45	4.164	129	
Int J Epidemiol	1	5.91	7.196	220	
JACC: Case Reports	2				
J Am Heart Assoc	2	5.02	5.501	100	
JAMA Cardiol	1	12.34	14.676	80	
JAMA Pediatr	2	6.27	16.193	196	3 in Pediatrics [‡]
J Am Coll Cardiol	2	9.23	24.093	451	1 in Cardiology*
J Am Soc Echocardiogr	1	4.00	5.251	139	
J Cardiothorac Vasc Anesth	1	1.66	2.628	87	
J Epidemiol Community Health	1	5.16	3.710	178	

J Heart Lung Transplant	1	6.48	10.247	143	20	in Cardiology*
J Int AIDS Soc	2	4.53	5.396	69		
J Med Eng Technol	1	2.08	0.527	44		
J Thorac Cardiovasc Surg	2	1.41	5.209	201		
Lancet	8	22.23	79.323	807	6	in Medicine (misc.)
Lancet Child Adolesc Health	1	9.24	11.288	43		
Lancet HIV	2	5.08	12.767	62		
Lancet Glob Health	3	9.68	26.763	107		
Nat Rev Cardiol	3	12.97	32.430	145	4	in Cardiology*
Nat Rev Dis Primers	1	23.16	52.329	128		
NEJM	1	35.41	91.253	1079	2	in Medicine (misc.)
Pediatr Rheumatol	1	2.96	3.054	44		
Polish Journal of Thoracic and Cardiovascular Surgery	1					
S Afr Dent J	1					
S Afr Med J	6	1.36	1.614	59		
SA Heart Journal	14					
S Afr J Child Health	1	0.49		16		
Science	1	15.19	47.728	1229	2	in Multidisciplinary
World J Pediatr Congenit Heart Surg	1	0.91		25		
Total	161					

*Abbreviated from Cardiology and Cardiovascular Medicine; ¥Abbreviated from Paediatrics, Perinatology & Child Health; ¶IS=Impact Score (based on Scopus data); §IF=Impact Factor (based on Web of Science data)

Performance indicators

Outputs in Top Citation Percentiles ⓘ

+ Add to Reporting

Publications in top 10% most cited worldwide

Show as field-weighted



> Analyze in more detail

Publications in Top Journal Percentiles ⓘ

+ Add to Reporting

Publications in top 10% journals

by CiteScore Percentile



> Analyze in more detail

International Collaboration ⓘ

+ Add to Reporting

Publications co-authored with researchers in other countries/regions

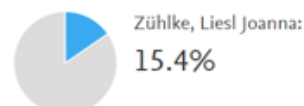


> Analyze in more detail

Academic-Corporate Collaboration ⓘ

+ Add to Reporting

Publications with both academic and corporate affiliations



> Analyze in more detail

Figure 2. Performance Indicators SciVal 2016-2021

Publications summary over last five years

	First author	Senior author	Other author	Total
Articles in refereed/peer-reviewed journals	9	23	68	100
• International	7	17	62	86
• Local	2	5	6	13
Books (authored or edited)			Editor	2
Chapters in books	4	2	1	7
Refereed/peer-reviewed conference outputs				24
Policy reports			0	0

Publications summary over my lifetime

	First author	Senior author	Other author	Total
Articles in refereed/peer-reviewed journals	28	30	103	161
• International	24	22	92	138
• Local	4	8	10	22
Books (authored or edited)			Editor	2
Chapters in books	5	3	2	10
Refereed/peer-reviewed conference outputs				58
Policy reports	0	1	2	3

5.3 Articles in refereed/peer-reviewed journals

5.3.1 International

Submitted/under review

1. Van Spall HGC, **Zühlke L** et al. Sex Differences in the Etiology and Burden of Heart Failure across Country Wealth: Analysis of 204 Countries and Territories 1990-2019. *European Heart Journal*. 2022. [Submitted]
2. Engel M, **Zühlke L** et al. Rationale, design, and baseline characteristics of the RHDGen (the genetics of rheumatic heart disease) network study. *Circulation: Genomic and Precision Medicine*. 2022. [Submitted]
3. Abraham DR, Butters C, Yunis NA, Lishman J, Scott C, van der Zalm MM, **Zühlke L**, Rabie H, Webb K. The impact of different variants of SARS-CoV-2 on the prevalence, presentation and severity of Multisystem Inflammatory Syndrome, in Children in South Africa. *The Pediatric Infectious Disease Journal*. 2022. [Submitted]
4. Webb K, Butters C, Facey-Thomas H, Stander R, Akhalwaya S, Faleye A, Spracklen T, Abrahams D, Day J, Allie N, Soni K, Scott C, **Zühlke L**. Clinical features which distinguish multisystem inflammatory syndrome from severe paediatric febrile disease in Cape Town, South Africa. *The Lancet Global Health*. 2022. [Submitted]
5. Saacks N, Eales J, Spracklen T, Aldersley T, Human P, Verryn M, Lawrenson J, Cupido B, Comitis G, De Decker, Fourie B, Swanson L, Joachim A, Brooks A, Ramesar R, Shaboodien G, Keavney B, and **Zühlke L**. Investigation of Copy Number Variation in South African Patients with Congenital Heart Defects. *Circulation: Genomic and Precision Medicine*. 2021. [Submitted]

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6. Perel P, Scarlatescu O, Avezum A, Chazal RA, Creager MA, Narula J, Pineiro D, Prabhakaran D, Wyss F, Yong H, **Zühlke L**, Eisele J-L, Pinto F. The World Heart Observatory: Harnessing the Power of Data for Cardiovascular Health. *Global Heart*. 2022; 17(1): 36. doi: <https://doi.org/10.5334/gh.1126>.
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9. Norman V, **Zühlke L**, Murray K, Morrow B. Prevalence of feeding and swallowing disorders in congenital heart disease: a scoping review. *Frontiers in Pediatrics*. 2022 Apr 5; 10: 843023. doi: 10.3389/fped.2022.843023.
10. Salie MT, Yang J, Ramírez Medina CR, **Zühlke LJ**, Chishala C, Ntsekhe M, Gitura B, Ogendo S, Okello E, Lwabi P, Musuku J, Mtaja A, Hugo-Hamman C, El-Sayed A, Damasceno A, Mocumbi A, Bode-Thomas F, Yilgwan C, Amusa GA, Nkereuwem E, Shaboodien G, Da Silva R, Lee DCH, Frain S, Geifman N, Whetton AD, Keavney B, Engel ME; RHDGen Network Consortium. Data-independent acquisition mass spectrometry in severe rheumatic heart disease (RHD) identifies a proteomic signature showing ongoing inflammation and effectively classifying RHD cases. *Clin Proteomics*. 2022 Mar 22; 19(1): 7. doi: 10.1186/s12014-022-09345-1.
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16. Moloi H, Engel M, Daniels K, **Zühlke L**. How do we measure the implementation of the World Health Assembly resolution on rheumatic fever and rheumatic heart disease in African countries? Rationale and design of an evidence-based scorecard. *Cardiovasc J Afr*. 2021; 32: 1-6. doi: 10.5830/CVJA-2021-015. [Epub ahead of print]
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6. **Zühlke LJ**. Section 26: Rheumatic heart disease, Part 26.6: Prevention and definitive therapy of acute rheumatic fever. In Camm AJ, Lüscher TF, Maurer G and Serruys PW (Eds.), *The ESC Textbook of Cardiovascular Medicine* (The European Society of Cardiology Series), 3rd Edition. Oxford University Press, 2018.
7. **Zühlke LJ**, Narula J and Carapetis JR. Chapter 46: Acute rheumatic fever. In Fuster V, Harrington RA, Narula J and Eapen ZJ (Eds.), *Hurst's the Heart, 14th Edition: Two Volume Set*. McGraw-Hill Education/Medical, 2017.
8. Mocumbi A, **Zühlke LJ** and Zilla P. Chapter 3: Acquired heart disease (pp. 44–72). In Stewart S, Sliwa K, Mocumbi A, Damasceno A and Ntsekhe M (Eds.), *The Heart of Africa: Clinical Profile of an Evolving Burden of Heart Disease, 1st Edition*. Wiley-Blackwell, 2016.
9. **Zühlke LJ** and Engel ME. Acute Rheumatic Fever and Rheumatic Heart Disease. In Spector JM and Gibson TE (Eds.), *Atlas of Pediatrics in the Tropics and Resource-Limited Settings, 2nd Edition*. Elk Grove Village, IL: American Academy of Pediatrics, 2016.
10. **Lawrenson J**, Pribut H, **De Decker HP**, **Zühlke L**. Cardiovascular Problems (pp. 166-182). In Motala C, Davidson A, Figaji A and Levin M (Eds.), *Handbook of Paediatrics, 7th Edition*. Oxford University Press Southern Africa, 2010.

5.6 Refereed/peer-reviewed conference outputs

2022

1. Mugambi L, **Zühlke L**, Wa Maina C. Towards AI Based Diagnosis of Rheumatic Heart Disease: Data Annotation and View Classification. IST-Africa 2022 Conference, 16-20 May 2022, Virtual. *IST-Africa 2022 Conference Proceedings*. 2022.

2021

2. Salie TM, Rampersadh K, Muhamed B, Engel KC, **Zühlke LJ**, Dale JB, and Engel ME. Abstract 824: Utility of Human Immune Responses to GAS Antigens as a Diagnostic Indicator for Acute Rheumatic Fever. 15th Pan-African Society of Cardiology (PASCAR) Congress in association with Kenya Cardiac Society, 22-25 November 2021, Mombasa, Kenya. *CVJA*. 2021.
3. Spracklen T, Saacks N, Eales J, Aldersley T, Verryn M, de Koning B, Human P, Lawrenson J, Cupido B, Comititis G, de Decker R, Fourie B, Swanson L, Joachim A, Brooks A, Ramesar R, Shaboodian G, Keavney B **and Zühlke L**. Abstract 833: Investigating the genetics of congenital heart disease in South Africa using exome sequencing and chromosomal microarray. 15th Pan-African Society of Cardiology (PASCAR) Congress in association with Kenya Cardiac Society, 22-25 November 2021, Mombasa, Kenya. *CVJA*. 2021.
4. Salie TM, Yang J, Medina CRR, **Zühlke LJ**, Shaboodian G, Frain S, Geifman N, Whetton AD, Keavney B and Engel ME. Abstract 826: Data independent acquisition mass spectrometry in severe Rheumatic Heart Disease (RHD) identifies a proteomic signature showing ongoing inflammation and effectively classifying RHD cases. 15th Pan-African Society of Cardiology (PASCAR) Congress in association with Kenya Cardiac Society, 22-25 November 2021, Mombasa, Kenya. *CVJA*. 2021.
5. Abrams J, Telford L, Engel K, Daniels R, Okello E, Beaton A, **Zühlke LJ** and Engel ME. Abstract 920: Validating rapid point-of-care Strep A test accuracy in Sub-Saharan Africa: pilot results from two sites. 15th Pan-African Society of Cardiology (PASCAR) Congress in association with Kenya Cardiac Society, 22-25 November 2021, Mombasa, Kenya. *CVJA*. 2021.
6. **Zühlke LJ**, Stander R, Joachim A, Aldersley T, Dawood A, Hendricks C, Soni K, Abrams J, Morrow B, Zar H, Webb K, Donald K, The COVID-19 paediatric repository investigators. Abstract 918: Investigating the clinical characteristics of paediatric COVID-19 in Cape Town, South Africa: Initial results from the University of Cape Town (UCT), Department of Paediatrics and Child Health, COVID-19 paediatric repository. 15th Pan-African Society of Cardiology (PASCAR) Congress in association with Kenya Cardiac Society, 22-25 November 2021, Mombasa, Kenya. *CVJA*. 2021.
7. Beaton AZ, Okello E, Rwebembera J, Grobler A, Engelman D, Carapetis J, Canales L, Dewyer A, Lwabi P, Mirabel M, Mocumbi AO, Murali M, Nakitto M, Ndagire E, Nunes M, Omara I, Sarnacki R, Scheel A, Wilson N, Zimmerman M, **Zühlke L**, Karthikeyan G, Sable CA, and Steer A. Abstract 12503: A Randomized Controlled Trial of Secondary Antibiotic Prophylaxis for Latent Rheumatic Heart Disease. American Heart Association's Scientific Sessions, 13-15 November 2021, Boston, USA. *Circulation*. 2021. 144(Suppl\1):A12503–A12503.
8. Salie TM, Rampersadh K, Muhamed B, Engel K, **Zühlke L**, Dale J, and Engel ME. Abstract 13788: Systematic Review: Utility of Human Immune Responses to Group A Streptococcus Antigens as a Diagnostic Indicator for Acute Rheumatic Fever. American Heart Association's Scientific Sessions, 13-15 November 2021, Boston, USA. American Heart Association's Scientific Sessions, 13-15 November 2021, Boston, USA. *Circulation*. 2021. 144(Suppl\1):A13788–A13788.
9. Salie TM, Yang J, Medina CR, Geifman N, **Zühlke LJ**, Frain S, Whetton A, Keavney B, and Engel ME. Abstract 13789: Identification of a Proteomic Signature Showing Ongoing Inflammation in Severe Rheumatic Heart Disease. American Heart Association's Scientific Sessions, 13-15 November 2021, Boston, USA. *Circulation*. 2021. 144(Suppl\1):A13789–A13789.
10. Zhu JW, Le NC, Wei S, **Zühlke L**, Lopes RD, Zannad F, and Van Spall HG. Abstract 9476: Global Representation of Leaders, Collaborators, and Enrolled Participants in Heart Failure Clinical Trials: A Systematic Bibliometric Review. American Heart Association's Scientific Sessions, 13-15 November 2021, Boston, USA. *Circulation*. 2021. 144(Suppl\1):A9476–A9476.
11. Butters C, Abraham D, Facey-Thomas H, Abrahams D, Faleye A, Rabie H, Scott C, **Zühlke L**, Webb K. Multisystem Inflammatory Syndrome in Children at Two Tertiary Hospitals in Cape Town, South Africa: Clinical Phenotype and Distinguishing Features from Similar Acute Inflammatory Conditions [abstract]. ACR Convergence 2021, 5-9 November 2021, Virtual. *Arthritis Rheumatol*. 2021; 73 (suppl 10). <https://acrabstracts.org/abstract/multisystem-inflammatory-syndrome-in-children-at-two-tertiary-hospitals-in-cape-town-south-africa-clinical-phenotype-and-distinguishing-features-from-similar-acute-inflammatory-conditions/>

12. Webb K, Moyo-Gwete T, Mendelsohn S, Butters C, Richardson S, Facey-Thomas H, Abrahams D, Madzivhandila M, Makhado Z, Ayres F, Horsnell W, Manamela N, Baguma R, Kimbung Mbandi S, Erasmus M, Scriba T, **Zühlke L**, Moore P, Kassiotis G, Scott C. SARS-CoV-2 Antibody Phenotype and Immune Gene Expression in Multi-system Inflammatory Syndrome in Children [abstract]. ACR Convergence 2021, 5-9 November 2021, Virtual. *Arthritis Rheumatol.* 2021; 73 (suppl 10). <https://acrabstracts.org/abstract/sars-cov-2-antibody-phenotype-and-immune-gene-expression-in-multi-system-inflammatory-syndrome-in-children/>
13. Spracklen T, Aldersley T, Saacks N, de Koning B, Lawrenson J, Human P, Eales J, Cupido B, Comitis G, De Decker R, Fourie B, Swanson L, Joachim A, Magadla P, Ngoepe M, Swanson L, Revell A, Ramesar R, Shaboodien G, Brooks A, Sliwa K, Anthony J, Osman A, Keavney B and **Zühlke L**. Abstract BS26: The Partnerships in Congenital Heart Disease in Africa Study (PROTEA): Clinical Characteristics and Genetic Findings from a South African Congenital Heart Disease Cohort. BCS Virtual Annual Conference, 7-8 June 2021. *Heart/BMJ.* 2021; 107(1): A170-A171.

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14. Abrams J, Engel M, Watkins D, Abdullahi L and **Zühlke L**. Integrating the prevention and control of rheumatic heart disease into country health systems: A systematic review. 20th Annual SA Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. October 31-November 2, 2019. *SA Heart Journal.* 2019; 16(3): 190.
15. Salie M, Engel K, Rampersadh K, Barth D, Muhamed B, **Zühlke L**, Dale J and Engel M. The AFROStrep registry: Report on the prevalence of pharyngeal group A streptococcal emm-types in Cape Town, South Africa. 20th Annual SA Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. October 31-November 2, 2019. *SA Heart Journal.* 2019; 16(3): 238-239.
16. **Zühlke L**, Engel M, Mocumbi A, Ali S, Abdulla A, Hugo-Hamman C, Watkins D and Subahi S. Response to the Addis Ababa communiqué on the eradication of rheumatic heart disease in Africa: A progress update from the PASCAR RHD task force. 20th Annual SA Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. October 31-November 2, 2019. *SA Heart Journal.* 2019; 16(3): 248.
17. **Zühlke L**, Joachim A, Hendricks E, Hendricks C, Lawrenson J, Cupido B, Bratt E-L, Mayosi B and Moons P. Lessons from the Adolescents Receiving Continuous Care for Childhood-Onset Chronic Conditions (ADOLE7C) study: Transition of overage patients at a paediatric cardiology outpatient clinic. 20th Annual SA Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. October 31-November 2, 2019. *SA Heart Journal.* 2019; 16(3): 249.

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18. Comitis G, Aldersley T, Fourie B, Kraus S, Joachim A, **Zühlke LJ** and Lawrenson J. Cardiomyopathy in children in the Western Cape – initial findings of the IMHOTEP registry. 19th Annual SA Heart Congress, Sun City, North-West Province, South Africa. October 4–7, 2018. *SA Heart Journal.* 2018; 15 (4): 278.
19. Aldersley T, Smit I, Lawrenson J, Human P, Cupido B, De Decker R, Shaboodien G, Comitis G, Fourie B, Ramaesar R, Mayosi BM, Keavney B and **Zühlke LJ** for the PROTEA Investigators. Partnerships for Congenital Heart Disease in Africa (The PROTEA Study) – the first 800 patients reveal key insights into our CHD cohort. 19th Annual SA Heart Congress, Sun City, North-West Province, South Africa. October 4–7, 2018. *SA Heart Journal.* 2018; 15 (4): 272.
20. Perkins S, Longenecker CT, **Zühlke LJ**, Beaton A, Okello E, Natuhurira I, Charles F, Dewyer A, Watkins D and Webel A. Pilot testing the RHD Action Needs Assessment Tool in a live environment. 19th Annual SA Heart Congress, Sun City, North-West Province, South Africa. October 4–7, 2018. *SA Heart Journal.* 2018; 15 (4): 302–303.
21. Abdullahi LH, Smit I, Engel ME, Watkins DA and **Zühlke LJ**. Task sharing in the diagnosis, prevention and management of rheumatic heart disease: A systematic review. 19th Annual SA Heart Congress, Sun City, North-West Province, South Africa. October 4–7, 2018. *SA Heart Journal.* 2018; 15 (4): 307.
22. Bratt EL, **Zühlke LJ**, Mayosi B, Skogby S, Joachim A and Moons P. Unravelling the role of healthcare system factors for continuing care of adolescents with congenital or rheumatic heart disease: Rationale and methods of the international Adole7C-project. 19th Annual SA Heart Congress, Sun City, North-West Province, South Africa. October 4–7, 2018. *SA Heart Journal.* 2018; 15(4): 276.

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Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. November 9-12, 2017. *SA Heart Journal*. 2017; 14(4): 233.

24. **Zühlke L**, Guzgay N, Saneka P, Human P, Pennel T, Brooks A and Cupido B. Cardiac surgery for grown-up congenital heart disease: A 12-year retrospective from a transitional country. 18th Annual SA Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. November 9-12, 2017. *SA Heart Journal*. 2017; 14(4): 253.
25. **Zühlke L**, Lawrenson J, Dedecker R, Cupido B, Kheavney B, Shaboodien G, Ramesar R and Mayosi B. Rationale and design of the Protea study-partnerships in congenital heart disease in Africa A North-South partnership in congenital heart disease (CHD): Establishment of a CHD cohort for aetiological, intervention and outcome studies in South Africa. 18th Annual SA Heart Congress, Sandton Convention Centre, Johannesburg, South Africa. November 9-12, 2017. *SA Heart Journal*. 2017; 14(4): 254.

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26. **Zühlke LJ**, Brittain K, Bekker L-G, Rabie H, Nuttall J, Eley B, Roux P, Myer L and Zar HJ for the Cape Town Adolescent Antiretroviral Cohort. Abstract 854: Cardiovascular disease biomarkers in perinatally HIV-infected adolescents on ART. 23rd Conference on Retroviruses and Opportunistic Infections (CROI), Boston, Massachusetts. 22-25 February 2016.
27. **Zühlke LJ**, Machila E, Lungu JC, Schwaninger S, van Dam J, Spector JM, Tadmor B and Musuku J. PS296: Task shifting: Proficiency of general radiography technicians in detecting rheumatic heart disease. World Congress of Cardiology and Cardiovascular Health, Mexico City, Mexico. 4-7 June 2016. *Global Heart*. 2016; 11(2): e65-e66. <https://doi.org/10.1016/j.gheart.2016.03.230>
28. El Sayed A, Ibrahim AS, Elhassan HHM, **Zühlke LJ**, Engel ME, Karthikeyan G, Teo K, Yusuf S and Mayosi BM on behalf of the REMEDY investigators. PM276: The global rheumatic heart disease study (REMEDY) – data from Sudan. World Congress of Cardiology and Cardiovascular Health, Mexico City, Mexico. 4-7 June 2016. *Global Heart*. 2016; 11(2): e116-e117. <https://doi.org/10.1016/j.gheart.2016.03.405>
29. Sanyahumbi AS, Aliku T, Carapetis JR, Fakakovikaetau T, Karlsten M, Musuku J, Viali S, Wilson N, Penny DY and the **Define RHD Registry Investigators**. PT288: The concept and design of DEFINERHD: a study to evaluate the progression of subclinical rheumatic valve lesions diagnosed through echocardiographic screening. World Congress of Cardiology and Cardiovascular Health, Mexico City, Mexico. 4-7 June 2016. *Global Heart*. 2016; 11(2): e174-e175. <https://doi.org/10.1016/j.gheart.2016.03.615>
30. Remenyi B and the **World Heart Federation criteria investigators**. OC02_08: Validation of the World Heart Federation Evidence Based Echocardiographic Criteria for Rheumatic Heart Disease. World Congress of Cardiology and Cardiovascular Health, Mexico City, Mexico. 4-7 June 2016. *Global Heart*. 2016; 11(2): e3. <https://doi.org/10.1016/j.gheart.2016.03.009>

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31. Hermanus T, Shato T, Engel M, **Zühlke LJ** and De Vries, J. A rapid ethnographic assessment approach to exploring patient and provider experience in rheumatic heart disease. Joint congress between the Pan-African Society of Cardiology and the Cardiovascular Society of Mauritius, Balaclava, Mauritius. 3-7 October 2015. *CVJA*. 2015; 26(5): 17-18.
32. Shato T, Hermanus T, Engel M, De Vries J and **Zühlke LJ**. Protocol: What factors influence health-seeking behaviour and adherence to secondary prophylaxis for patients with sore throat, acute rheumatic fever and rheumatic heart disease? Joint congress between the Pan-African Society of Cardiology and the Cardiovascular Society of Mauritius, Balaclava, Mauritius. 3-7 October 2015. *CVJA*. 2015; 26(5): 31-32.
33. **Zühlke L**, Engel ME, Mayosi BM. Contemporary estimates of morbidity and mortality rates of rheumatic heart disease in South Africa: Outcomes from the Cape Town component of the global rheumatic heart disease registry. Joint congress between the Pan-African Society of Cardiology and the Cardiovascular Society of Mauritius, Balaclava, Mauritius. 3-7 October 2015. *CVJA*. 2015; 26(5): 37.
34. **Zühlke LJ**, Engel ME, Watkins D and Mayosi BM. Incidence, prevalence and outcome of rheumatic heart disease in South Africa: A systematic review of contemporary studies. Joint congress between the Pan-African Society of Cardiology and the Cardiovascular Society of Mauritius, Balaclava, Mauritius. 3-7 October 2015. *CVJA*. 2015; 26(5): 37-38.
35. **Zühlke LJ**, Engel ME, Nkepu S and Mayosi BM. Evaluation of a focused protocol for handheld echocardiography and computer-assisted auscultation in detecting latent rheumatic heart disease in scholars. Joint congress between the Pan-African Society of Cardiology and the Cardiovascular Society of Mauritius, Balaclava, Mauritius. 3-7 October 2015. *CVJA*. 2015; 26(5): 38.

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36. **Zühlke LJ**. Rheumatic Heart Disease in Africa: The ASAP Programme. World Congress of Cardiology, Melbourne, Australia. 4-7 May 2014.
37. **Zühlke LJ**, Marijon E, Mirabel M. Priorities for congenital and rheumatic heart disease in Africa. World Congress of Cardiology, Melbourne, Australia. 4-7 May 2014.
38. **Zühlke LJ**. Practicalities of screening for Rheumatic Heart Disease. World Congress of Cardiology, Melbourne, Australia. 4-7 May 2014.
39. **Zühlke LJ**. HIV and cardiac health. World Congress of Cardiology, Melbourne, Australia. 4-7 May 2014.

2013

40. Nkepu S, Engel ME, Lemmer C and **Zühlke LJ**. Abstract 1197: Development of the vanguard demonstration site for RHD among school-aged learners in the Western Cape, South Africa. 6th World Congress: Paediatric Cardiology and Cardiac Surgery, Cape Town, South Africa. 17-22 February 2013. *CVJA*. 2013; 24(1): 220.
41. Barth D, **Zühlke LJ**, Joachim A, Cupido B, Mayosi BM and Engel ME. Abstract 1536: Geographical Information Systems (Gis) as an aid to investigating concordance patterns among rheumatic heart disease (RHD) patients: A pilot project. 6th World Congress: Paediatric Cardiology and Cardiac Surgery, Cape Town, South Africa. 17-22 February 2013. *CVJA*. 2013; 24(1): 248-249.
42. Joachim A, **Zühlke LJ**, Engel ME, Daniel R, Cupido B, Koyana N, Karthikeyan G, Yusuf S, Teo K and Mayosi BM. Abstract 1268: Increased knowledge required in adults with rheumatic heart disease: The Cape Town experience. 6th World Congress: Paediatric Cardiology and Cardiac Surgery, Cape Town, South Africa. 17-22 February 2013. *CVJA*. 2013; 24(1): 274-275.

2012

43. **Zühlke LJ**, Karthikeyan G, Engel ME, Cupido B, Rangarajan S, Yusuf S, Teo K and Mayosi BM for the Global Rheumatic Heart Disease Registry (REMEDY) Investigators. Abstract 0266: The Rheumatic Heart Disease Global Registry (REMEDY) study: Preliminary report (oral presentation). World Congress of Cardiology, Dubai, UAE. 18-21 April 2012. *Circulation*. 2012; 125(19): e723. <https://doi.org/10.1161/CIR.0b013e31824fcd6b>
44. **Zühlke LJ**. Rheumatic Heart Disease: Practicalities of Screening in Africa. World Congress of Cardiology, Dubai, UAE. 18-21 April 2012. *Circulation*. 2012.
45. **Zühlke LJ**. Rheumatic Heart Disease: Training and Public Awareness. World Congress of Cardiology, Dubai, UAE. 18-21 April 2012. *Circulation*. 2012.

2011

46. Brennan TP, Springer D, **Zühlke LJ**, Abdelrahman H, Clifford GD, Mayosi BM and Tarassenko L. The use of expert annotations to assess signal quality of phonocardiograms using mStethoscope: A feasibility study. The 33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Boston, USA. 30 August-3 September 2011.
47. Nkepu S, Engel ME, Lemmer C and **Zühlke LJ**. Development of the vanguard demonstration site for RHD screening among school-aged learners in the Western Cape, South Africa. The 10th Pan African Society of Cardiology Conference and the Uganda Heart Association, Kampala, Uganda. 27-30 May 2011. *CVJA*. 2011; 22(3): S16.

2009

48. **Zühlke LJ**, Brooks A, Duffy R and Castelyn C. Focus on 2007: A clinical audit of the Red Cross War Memorial Children's Hospital Paediatric Cardiac Surgery Programme (abstract). 5th World Congress of Paediatric Cardiology and Cardiac Surgery, Cairns, Australia. 21-26 June 2009.
49. **Zühlke LJ**, Roeland and Engel ME. An iceberg in Africa: Children post-surgery for rheumatic heart disease. 5th World Congress of Paediatric Cardiology and Cardiac Surgery, Cairns, Australia. 21-26 June 2009.

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50. De Decker R, Bruwer Z, Schoeman M, Schutte G, **Zühlke LJ** and Lawrenson J. The incidence of the 22q11.2 deletion syndrome in children referred to the Cardiology Service at the Red Cross Children's Hospital, Cape

Town, South Africa: a prospective study (abstract). 9th Annual Congress of the South African Heart Association, Wild Coast Sun, Transkei. 2-5 November 2008. *CVJA*. 2008: S9.

51. **Zühlke LJ**, Brooks A, Duffy R and Castelyn C. Focus on 2007: A clinical audit of the Red Cross War Memorial Children's Hospital Paediatric Cardiac Surgery Programme (abstract). 9th Annual Congress of the South African Heart Association, Wild Coast Sun, Transkei. 2-5 November 2008. *CVJA*. 2008: S39.
52. Ofoegbu CKP, **Zühlke LJ** and Brooks A. Management of atrio-ventricular septal defects in a developing country: An institutional experience (abstract). 9th Annual Congress of the South African Heart Association, Wild Coast Sun, Transkei. 2-5 November 2008. *CVJA*. 2008: S28.
53. Geldenhuys A, **Zühlke LJ**, Langtree K, Mashele G, Human P and Brooks A. A review of the practice of a staged approach for biventricular repair in Red Cross Children's Hospital over the past six years: Is the placement of a pulmonary artery band safer in perceived high-risk cases? (abstract). 9th Annual Congress of the South African Heart Association, Wild Coast Sun, Transkei. 2-5 November 2008. *CVJA*. 2008: S11.

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54. Seller N, De Decker R, **Zühlke LJ**, Rabie H, Brooks A and Lawrenson J. Two unusual cases of purulent pericarditis. *heart 2 heart Africa* 2007, Sun City, South Africa. 22 - 25 November 2007. *SAMJ*. 2007; 97(11): 1105.
55. Shipton S, **Zühlke L**, De Decker R, Stirling J, Lawrenson J. The occlusion of residual forward flow in the subpulmonary outflow tract in patients undergoing single ventricle palliation. *heart 2 heart Africa* 2007, Sun City, South Africa. 22 - 25 November 2007. *SAMJ*. 2007; 97(11): 1105.
56. **Zühlke LJ**, De Decker R, Hewitson J, Pribut H, Shipton S, Stirling J and Lawrenson J. Alcapa: From critical to cured. *heart 2 heart Africa* 2007, Sun City, South Africa. 22 - 25 November 2007. *SAMJ*. 2007; 97(11): 1109–1110.
57. **Zühlke LJ**, De Decker R, Hewitson J, Seller N, Whitelaw A and Lawrenson J. Of lice and men: A case of Bartonella quintana. *heart 2 heart Africa* 2007, Sun City, South Africa. 22 - 25 November 2007. *SAMJ*. 2007; 97(11): 1110.

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58. Stirling J, **Zühlke L**, De Decker H, Hewitson J, Pribut H, Lawrenson J. Abstract P704: An 'epidemic' of anomalous origin of left coronary artery from the pulmonary artery at the red cross children's hospital, Cape Town, South Africa. 3rd World Congress of Paediatric Cardiology and Cardiac Surgery, Toronto, Canada. 27-31 May 2001. *Cardiol Young*. 2001; 11(S1): 227. <https://doi.org/10.1017/S1047951100012142>

5.7 Patents

None

5.8 Articles in non-refereed/non-peer reviewed journals

1. **Zühlke LJ**. Rheumatic heart disease and the ASAP programme: Fresh insights into an old disease. *CME*. 2011.
2. Lawrenson J, Pribut H and **Zühlke LJ**. Drugs for the paediatric heart. *CME*. 2011
3. **Zühlke LJ**. Supporting the Failing Heart. *Paediatric Reviews*. 2007.

5.9 Technical reports

None

5.10 Other contributions/reports, e.g. policy reports

1. Watkins D, **Zühlke L**, Engel M, Daniels R, Francis V, Shaboodien G, Kango M, Abul-Fadl A, Adeoye A, Ali S, Al-Kebisi M, Bode-Thomas F, Bukhman G, Damasceno A, Goshu DY, Elghamrawy A, Gitura B, Haileamlak A, Hailu A, Hugo-Hamman C, Justus S, Karthikeyan G, Kennedy N, Lwabi P, Mamo Y, Mntla P, Sutton C, Mocumbi AO, Mondo C, Mtaja A, Musuku J, Mucumbitsi J, Murango L, Nel G, Ogendo S, Ogola E, Ojji D, Olunuga TO, Redi MM, Rusingiza KE, Sani M, Sheta S, Shongwe S, van Dam J, Gamra H, Carapetis J, Lennon D, and Mayosi BM. Seven key actions to eradicate rheumatic heart disease in Africa: The Addis Ababa communiqué. *Cardiovasc J Afr*. 2016; 27: 1–5. doi: 10.5830/CVJA-2015-090
2. Mayosi BM, Gamra H, Dangou JM and Kasonde J for the **2nd All-Africa Workshop on Rheumatic Fever and Rheumatic Heart Disease participants**. Rheumatic heart disease in Africa: The Mosi-o-Tunya call to action. *Lancet Glob Health*. 2014; 2(8): e 438–439. doi: 10.1016/S2214-109X(14)70234-7.

3. Carapetis JR and **Zühlke LJ**. Global research priorities in rheumatic fever and rheumatic heart disease. *Ann Pediatr Cardiol*. 2011; 4(1): 4–12. doi: 10.4103/0974-2069.79616.

These three reports are critical in the RHD landscape.

1. **Global research priorities in rheumatic fever and rheumatic heart disease.**

This technical white paper was adopted by the World Heart Federation as the definitive roadmap for RHD research at the time. Since 2011, several of the outcomes have been achieved demonstrating the usefulness of this paper.

2. **Rheumatic heart disease in Africa: The Mosi-o-Tunya call to action.**

This paper was the result of a workshop on ARF and RHD organised by Prof Zühlke (with colleagues) under the auspices of The Pan-African Society of Cardiology (PASCAR). It resulted from the early findings of the study co-ordinated by Prof Zühlke (first author), which provided the groundswell of data leading to a call for action against rheumatic heart disease. As a key workshop participant, this represents a substantial contribution to a momentous technical paper with profound implications.

3. **Seven key actions to eradicate rheumatic heart disease in Africa: The Addis Ababa communique.**

Following the Mosi-o-Tunya declaration in 2014, another meeting followed in 2015 to solidify the initial progress and lay down concrete action points delineated in this publication. This led to the Addis Ababa communique and African Union declaration – a landmark health resolution signed by all heads of State – to eradicate rheumatic heart disease in Africa. Prof Zühlke was chosen to represent the PASCAR delegates at the African Union at the time of this historic resolution.

5.11 Best publications, impact and contribution

1. Beaton A, Okello E, Rwebembera J, Grobler A, Engelman D, Alepere J, Canales L, Carapetis J, DeWyer A, Lwabi P, Mirabel M, Mocumbi A O, Murali M, Nakitto M, Ndagire E, Nunes M C P, Omara I O, Sarnacki R, Scheel A, Wilson N, Zimmerman M, **Zühlke L**, Karthikeyan G, Sable C A and Steer A C. Secondary Antibiotic Prophylaxis for Latent Rheumatic Heart Disease. *NEJM*. 2021. [Epub ahead of print]

Impact score: **35.41**
 Impact factor: **91.253**
 H Index: **1079**
 Ranking: **2** in Medicine (misc.)
 Cited: **12**

The key question around echocardiographic screening for subclinical RHD is whether secondary prophylaxis, commenced if latent rheumatic heart disease is detected, will have a significant effect on progression (worsening) or regression (improvement) of valve lesions. This paper also represents significant collaboration across almost all RHD endemic countries and researchers, many of whom (including Prof Zühlke) were involved in the original WHF criteria landmark paper, now cited over 600 times. Prof Zühlke was part of the scientific advisory team, reviewed over 2000 echoes to establish the findings and is now involved in the second phase of this study. The findings are currently embargoed and the focus of an editorial.

2. Moons P, Bratt EL, De Backer J, Goossens E, Hornung T, Tutarel O, **Zühlke L**, Araujo JJ, Callus E, Gabriel H, Shahid N, Sliwa K, Verstackpen A, Yang HL, Thomet C. Transition to adulthood and transfer to adult care of adolescents with congenital heart disease: a global consensus statement of the ESC Association of Cardiovascular Nursing and Allied Professions (ACNAP), the ESC Working Group on Adult Congenital Heart Disease (WG ACHD), the Association for European Paediatric and Congenital Cardiology (AEPC), the Pan-African Society of Cardiology (PASCAR), the Asia-Pacific Pediatric Cardiac Society (APPCS), the Inter-American Society of Cardiology (IASC), the Cardiac Society of Australia and New Zealand (CSANZ), the International Society for Adult Congenital Heart Disease (ISACHD), the World Heart Federation (WHF), the European Congenital Heart Disease Organisation (ECHDO), and the Global Alliance for Rheumatic and Congenital Hearts (Global ARCH). *Eur Heart J*. 2021. [Epub ahead of print]

Impact score: **6.51**
 Impact factor: **29.983**

H Index: **312**
 Ranking: **9** in Cardiology and Cardiovascular Medicine
 Cited: **19**

This study represents the combined efforts of multiple associations and societies to identify transition to adulthood and transfer to adult care. Prof Zühlke was intimately involved in writing sections of the guideline but even more provided LMIC focused contributions.

3. Coffey S, Roberts-Thomson R, Brown A, Carapetis J, Chen M, Enriquez-Sarano M, **Zühlke L**, Prendergast B. Global Epidemiology of Valvular Heart Disease. *Nat Rev Cardiol.* 2021. [Epub ahead of print]

Imapct score: **12.97**
 Impact factor: **32.43**
 H Index: **145**
 Ranking: **4** in Cardiology and Cardiovascular Medicine
 Cited: **43**

Nature Reviews is a high impact journal which invites solicited contributions. This paper focuses on the global epidemiology of Valvular Heart Disease with Prof Zühlke providing key information regarding RHD. These are commissioned reviews and will be an important reference for students, postgraduates and researchers alike. It will become a critical reference and has already been disseminated widely on social media and in talks.

4. Machipisa T, Chong M, Muhamed B, Chishala C, Shaboodien G, Pandie S, de Vries J, Laing N, Joachim A, Daniels R, Ntsekhe M, Hugo-Hamman CT, Gitura B, Ogendo S, Lwabi P, Okello E, Damasceno A, Novela C, Mocumbi AO, Madeira G, Musuku J, Mtaja A, ElSayed A, Elhassan HHM, Bode-Thomas F, Okeahialam BN, **Zühlke LJ**, Mulder N, Ramesar R, Lesosky M, Parks T, Cordell HJ, Keavney B, Engel ME, Paré G. Association of Novel Locus With Rheumatic Heart Disease in Black African Individuals: Findings From the RHDGen Study. *JAMA Cardiol.* 2021. [Epub ahead of print]

Impact score: **12.34**
 Impact factor: **14.676**
 H Index: **80**
 Ranking: **2** in Cardiology and Cardiovascular Medicine
 Cited: **8**

A pan-African study led by researchers at the University of Cape Town (UCT) has identified the genetic determinants of rheumatic heart disease (RHD) risk in black Africans. This study is the largest of its kind to provide insights into the genetic determinants of RHD in Africa. The Genetics of Rheumatic Heart Disease (RHDGen) study was coordinated by A/Prof Mark Engel, an epidemiologist in UCT's Department of Medicine, with Prof Zühlke acting as the clinical coordinator of the group of researchers at the university.

5. Vogel B, Acevedo M, Appelman Y, Merz CNB, Chieffo A, Figtree GA, Guerrero M, Kunadian V, Lam CSP, Maas AHEM, Mihailidou AS, Olszanecka A, Poole JE, Saldarriaga C, Saw J, **Zühlke L** and Mehran R. The *Lancet* women and cardiovascular disease Commission: reducing the global burden by 2030. *Lancet.* 2021.

Impact score: **22.23**
 Impact factor: **79.323**
 H Index: **807**
 Ranking: **6** in Medicine (misc.)
 Cited: **150**

The Lancet women and cardiovascular disease Commission is the first global report on cardiovascular disease (CVD) in women. The landmark report outlines ten priority recommendations, in keeping with the United Nations Sustainable Development Goals, for reducing the global CVD burden in women by 2030. This commission's work is both a starting point and a call to action to mobilise and energise healthcare

professionals, policymakers – and women themselves – to work towards a healthier future. Prof Zühlke was the only African among the seventeen commissioners from eleven different countries.

6. Coates MM, Sliwa K, Watkins DA, **Zühlke L**, Perel P, Berteletti F, Eiselé J-L, Klassen SL, Kwan GF, Mocumbi AO, Prabhakaran D, Habtemariam MK and Bukhman G. An investment case for the prevention and management of rheumatic heart disease in the African Union 2021-2030: a modelling study. *Lancet Glob Health*. 2021.

Impact score: **9.68**
 Impact factor: **26.763**
 H Index: **107**
 Ranking: **11** in Medicine (misc.)
 Cited: **14**

Countries of the African Union (AU) have the highest prevalence of rheumatic heart disease (RHD) globally. This important study looked at operationalizing interventions to prevent and treat rheumatic fever and rheumatic heart disease in the hardest hit region of the world. Included is a modelled investment case for RHD control in the AU which links directly to action at the country level. Notably, progress is already being made with the implementation of PEN-Plus (Package of Essential Noncommunicable Disease Interventions – Plus) in several AU countries and is set to continue over the coming years. Prof Zühlke contributed significantly to the findings and has already been disseminating results of this study in WHO and United Nations.

7. Abdullahi L, Albertus C, Perkins S, Ralston K, White A, Mwangi J, and **Zühlke LJ**. The RHD Action Small Grants Programme: Small Investment, Big Return!. *Glob Heart*. 2021; 16(1): 28.

Impact score: **2.33**
 Impact factor: **3.426**
 H Index: **40**
 Ranking: **4** in Community and Home Care
 Cited: **1**

Although this paper has not been cited yet, published only in 2019, it represents an important contribution to the RHD landscape with the results of a series of small grants given to the RHD community. The first two authors are also post-graduate students who led on the paper with Zühlke as senior author.

8. Moons P, Skogby S, Bratt E-L, **Zühlke L**, Marelli A, and Goossens E. Discontinuity of cardiac follow-up in young people with congenital heart disease transitioning to adulthood: A systematic review and meta-analysis. *J Am Heart Assoc*. 2021; 10: e019552.

Impact score: **5.02**
 Impact factor: **5.501**
 H Index: **100**
 Ranking: **27** in Cardiology and Cardiovascular Medicine
 Cited: **17**

9. Roth GA, Mensah GA, Johnson CO, Addolorato G, Ammirati E, Baddour LM, Barengo NC, Beaton AZ, Benjamin EJ, Benziger CP, Bonny A, Brauer M, Brodmann M, Cahill TJ, Carapetis J, Catapano AL, Chugh SS, Cooper LT, Coresh J, Criqui M, DeCleene N, Eagle KA, Emmons-Bell S, Feigin VL, Fernández-Solà J, Fowkes G, Gakidou E, Grundy SM, He FJ, Howard G, Hu F, Inker L, Karthikeyan G, Kassebaum N, Koroshetz W, Lavie C, Lloyd-Jones D, Lu HS, Mirijello A, Misganaw Temesgen A, Mokdad A, Moran AE, Muntner P, Narula J, Neal B, Ntsekhe M, Moraes de Oliveira G, Otto C, Owolabi M, Pratt M, Rajagopalan S, Reitsma M, Ribeiro ALP, Rigotti N, Rodgers A, Sable C, Shakil S, Sliwa-Hahnle K, Stark B, Sundström J, Timpel P, Tleyjeh IM, Valgimigli M, Vos T, Whelton PK, Yacoub M, **Zühlke L**, Murray C, Fuster V, for the GBD-NHLBI-JACC Global Burden of Cardiovascular Diseases Writing Group*. Global Burden of Cardiovascular Diseases and Risk Factors, 1990–2019: Update From the GBD 2019 Study. *Journal of the American College of Cardiology*. 2020; 76(25): 2982-3021.

Impact score: **9.23**
 Impact factor: **24.093**
 H Index: **451**
 Ranking: **1** in Cardiology and Cardiovascular Medicine
 Cited: **172**

10. Liu Y, Chen S, **Zühlke L**, Black GC, Choy MK, Li N, and Keavney BD. Global birth prevalence of congenital heart defects 1970–2017: updated systematic review and meta-analysis of 260 studies. *International Journal of Epidemiology*. 2019 Apr 1;48(2):455-463.

Impact score: **5.91**
 Impact factor: **7.196**
 H Index: **220**
 Ranking: **13** in Epidemiology
 Cited: **440**

This paper is the top cited paper in paediatric cardiology in 2019. The estimates of global birth prevalence of congenital heart defects are contemporary and already forms part of cardiology texts and references.

11. **GBD 2015 Disease and Injury Incidence and Prevalence Collaborators**
 Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990–2015: A systematic analysis for the Global Burden of Disease Study 2015. *Lancet*, Volume 388, Issue 10053, 8–14 October 2016, Pages 1 545-1 602

Impact score: **22.23**
 Impact factor: **79.323**
 H Index: **807**
 Ranking: **6** in Medicine (misc.)
 Cited: **7796***

12. **GBD 2015 Risk Factors Collaborators**
 Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2015: A systematic analysis for the Global Burden of Disease Study 2015. *Lancet*, Volume 388, Issue 10053, 8–14 October 2016, Pages 1 659-1 724

Impact score: **22.23**
 Impact factor: **79.323**
 H Index: **807**
 Ranking: **6** in Medicine (misc.)
 Cited: **6140**

13. **GBD 2015 Mortality and Causes of Death Collaborators**
 Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: A systematic analysis for the Global Burden of Disease Study 2015. *Lancet*, Volume 388, Issue 10053, 8–14 October 2016, Pages 1 459–1 544

Impact score: **22.23**
 Impact factor: **79.323**
 H Index: **807**
 Ranking: **6** in Medicine (misc.)
 Cited: **3993**

The Global Burden of Disease project is funded by Bill and Melinda Gates Foundation and is the largest academic project in medicine. It is the direct output of the Institute of Health Metrics and Evaluation (IHME) and it is only after CV review and with personal invitation that one is asked to join the collaborating groups.

The authorship includes review of the paper at all stages with critical input into the statistical modelling that is intrinsic to the process of developing and publishing these outputs. These calculations are re-run in its entirety each year and receive thousands of citations. The paper on the Global Burden of Congenital Heart Disease is currently under review by the *New England Journal of Medicine*.

14. Reményi B, Wilson N, Steer A, Ferreira B, Kado J, Kumar K, Lawrenson J, Maguire G, Marijon E, Mirabel M, Mocumbi AO, Mota C, Paar J, Saxena A, Scheel J, Stirling J, Viali J, Vijayalakshmi IB, Wheaton G, **Zühlke LJ** and Carapetis J. World Heart Federation criteria for echocardiographic diagnosis of rheumatic heart disease – an evidence-based guideline. *Nat Rev Cardiol*. 2012; 9(5): 297–309.

Impact score: **12.97**
 Impact factor: **32.43**
 H Index: **145**
 Ranking: **4** in Cardiology and Cardiovascular Medicine
 Cited: **690**

The World Heart Federation Criteria is a landmark article in rheumatic heart disease. Prof Zühlke substantially contributed to this article from its inception to participation within the group, contribution to the final article and involvement at the Bangkok meeting. This article marks a seminal change in the method of screening for rheumatic heart disease. She was chosen to be part of this group from origin in 2009, soon after commencing her research in this area. The group has continued to grow and develop, with Prof Zühlke playing a key role in the follow-up data as well as a new publication on contextualising guidelines in the current era.

15. **Zühlke LJ**, Engel ME, Karthikeyan G, Rangarajan S, Mackie P, Cupido B, et al. Characteristics, complications, and gaps in evidence-based interventions in rheumatic heart disease: The Global Rheumatic Heart Disease Registry (the REMEDY study). *Eur Heart J*. 2015; 36(18): 1115–22a.

Impact score: **6.51**
 Impact factor: **29.983**
 H Index: **312**
 Ranking: **9** in Cardiology and Cardiovascular Medicine
 Cited: **417**

The Global Rheumatic Heart Disease registry is the first and largest prospective study on rheumatic heart disease in low- and middle-income countries to date. In addition, it established a network of collaborative cardiology units across Africa, Middle East and Asia. It was the first African-run study to be presented as a late breaking abstract at a European Society of Cardiology meeting. It was highlighted in the journal with an editorial written by the leader in the field of rheumatic heart disease, as a landmark study. Prof Zühlke contributed significantly to the final protocol, chaired the working group, formed part of the steering group, and is first author on this and pending papers, as well as clinical coordinator of the entire study. In addition, this study represented the first large consortium of low- and middle-income country authors involved in ARF and RHD. As such, it embodied capacity building, research development and ownership of a disease by African and developing country researchers. It also formed the backbone of the Addis Ababa Communiqué and encapsulates the key actions needed to eradicate rheumatic heart disease in this lifetime. In addition, this paper won the best publication award in 2017 at UCT within the Faculty of Health Sciences.

16. **Zühlke LJ**, Karthikeyan G, Engel ME et al. Clinical Outcomes in 3 343 children and adults with rheumatic heart disease from 14 low- and middle-income countries two-year follow-up of the Global Rheumatic Heart Disease Registry (the REMEDY Study). *Circulation*. 2016; 134 (19): 1456-1466.

Impact score: **14.18**
 Impact factor: **29.69**
 H Index: **630**
 Ranking: **3** in Cardiology and Cardiovascular Medicine
 Cited: **192**

The Global Rheumatic Heart Disease registry is the first and largest prospective study on rheumatic heart disease in low- and middle-income countries to date. The findings of this registry have been dramatic to say the least. The mortality rate is more than 10 times previously estimated – 16.7% versus 1.25% – and has resulted in key data to underpin the WHO resolution. This is the paper that outlines the two-year findings. Several sub-studies have been completed and are in process with four other papers already published from these data. Not only was Prof Zühlke first author on these two papers, she also completed all the statistics on both papers herself, with some assistance from Dr Katya Mauff, and has completed all the statistics for all subsequent published papers.

17. **Zühlke LJ**, Mirabel M and Marijon E. Congenital heart disease and rheumatic heart disease in Africa: Recent advances and current priorities. *Heart*. 2013.

Impact score: **3.80**
 Impact factor: **5.994**
 H Index: **189**
 Ranking: **31** in Cardiology and Cardiovascular Medicine
 Cited: **203**

This paper marks the merging of her two research interests: Congenital and rheumatic heart disease. It highlights the advances and current priorities of these two important cardiovascular diseases in Africa and, in so doing, has brought continued attention to these neglected areas. It also represents a collaboration between South Africa and Paris (Drs Mirabel and Marijon), as well as New Calendonia (Dr Mirabel), Uganda (Dr Marijon) and Senegal (Drs Maribel and Marijon). It established her as a leader in congenital and rheumatic heart disease research for Africa and has been instrumental in setting the research and policy agendas for CHD and RHD on the continent. Given the substantial interest generated by this article, she has been approached by several countries to assist in developing research and training infrastructure for congenital and rheumatic heart disease.

18. Kassebaum N for the **Global Burden of Disease Child and Adolescent Health Collaboration**. Child and adolescent health from 1990 to 2015: Findings from the Global Burden of Diseases, Injuries, and Risk Factors 2015 Study. *JAMA Pediatr*. 2017; 171(6): 573–592.

Impact score: **6.27**
 Impact factor: **16.193**
 H Index: **196**
 Ranking: **3** in Paediatrics, Perinatology and Child Health
 Cited: **266**

Another important paper from the GBD project, which reflects her interest in adolescent health, transitioning between childhood and adolescence and the global burden of diseases, injuries and risk factors in this population. Although not yet well-cited, it is a critical reference and was published in the top paediatric journal.

19. Watkins DA, Beaton AZ, Carapetis JR, Karthikeyan G, Mayosi BM, Wyber R, Yacoub MH and **Zühlke LJ**. Rheumatic heart disease worldwide: JACC Scientific Expert Panel. *J Am Coll Cardiol*. 2018 Sep 18; 72(12): 1397–1416.

Impact score: **9.23**
 Impact factor: **24.093**
 H Index: **451**
 Ranking: **1** in Cardiology and Cardiovascular Medicine
 Cited: **97**

This paper combined some of the best names in RHD, including Sir Magdi Yacoub, Bongani Mayosi and Jonathan Carapetis in a JACC Scientific Expert Panel. These are commissioned reviews and will be an important reference for student, postgraduates and researchers. Although not yet well cited, it is a critical

reference, has already been disseminated widely on social media and in talks, and was published in the top cardiology journal.

20. **Zühlke LJ**, Engel ME, Watkins D and Mayosi BM. Incidence, prevalence and outcome of rheumatic heart disease in South Africa: A systematic review of contemporary studies. *Int J Cardiol.* 2015; 199: 375–83.

Impact score: **2.45**
 Impact factor: **4.164**
 H Index: **129**
 Ranking: **66** in Cardiology and Cardiovascular Medicine
 Cited: **42**

This publication represents the first comprehensive systematic review of the current epidemiology of rheumatic heart disease in South Africa and shows for the first time a population-level decrease in mortality. It utilises systematic review methods and has not only led to collaborations with the Global Burden of Disease consortium and Institute of Health Metrics and Economics (IHME), but also resulted in Prof Zühlke receiving an invitation to be a *Cochrane Heart* reviewer.

5.12 Research/scholarly presentations at congresses

Keynote/invited talks over the past two years:

Name	Place	Date	Title
American Heart Association	Philadelphia, USA	November 2019	<ul style="list-style-type: none"> Inaugural Bongani Mayosi Memorial Lecture: Serving the needs of Africa
30 th Great Wall of China Cardiology Meeting	Beijing, China	October 2019	<ul style="list-style-type: none"> Current challenges and future vision: RHD GUCH: Where next?
European Society of Cardiology	Paris, France	August 2019	<ul style="list-style-type: none"> Does sex-specific differences matter? The African perspective (Session: CVD and Women) Innovation and Patient accessibility to treatment of cardiovascular disorders: Major challenges
WHO Expert Panel	Kigali, Rwanda	July 2019	<ul style="list-style-type: none"> PEN package
Women as One Think Tank	Paris, France	May 2019	<ul style="list-style-type: none"> The approach of the South African Heart Association to Ignite change in cardiology
Annual Heart Valve Society Meeting	Barcelona, Spain	April 2019	<ul style="list-style-type: none"> Looking forward: Worldwide access to HVD care in 2039 – myth or reality?" Rheumatic mitral valve disease: Opportunities for intervention, innovation and care Burning unsolved HVD issues
Italian Society of Cardiology	Rome, Italy	December 2018	<ul style="list-style-type: none"> Recent advances in clinical epidemiology of rheumatic heart disease

World of Cardiology	Congress	Dubai, UAE	December 2018	<ul style="list-style-type: none"> Addressing the global burden of heart disease in children Cardiac disease in pregnancy – meet the expert Unoperated congenital heart disease, women with high-risk pregnancy as pulmonary hypertension, prosthetic valve disease and contraception Rheumatic fever and rheumatic valve disease cases Epidemiology and burden of disease
European of Cardiology	Society	Munich, Germany	August 2018	<ul style="list-style-type: none"> Delivering best care for rheumatic heart disease
2 nd Seminar on children's heart disease		Algiers, Algeria	November 2018	<ul style="list-style-type: none"> Paediatric cardiac surgical outcomes: Lessons from PROTEA and IQIC
Science on the Swan		Perth, Australia	May 2018	<ul style="list-style-type: none"> RHD in South Africa
Heart Valve Society Annual Scientific Meeting		New York, USA	April 2018	<ul style="list-style-type: none"> The remedy for rheumatic heart disease
Pan-African of Cardiology	Society	Khartoum, Sudan	October 2017	<ul style="list-style-type: none"> Cardiac surgery for grown-up congenital heart disease: A 12-year retrospective from a transitional country Echocardiographic screening for rheumatic heart disease: Lessons and current status Mapping congenital heart disease cardiology in Africa: The need for echo and cardiac surgery
European of Cardiology	Society	Barcelona, Spain	August 2017	<ul style="list-style-type: none"> A World Congress of Paediatric Cardiology and Cardiac Surgery contemporary cohort study of rheumatic heart disease
World Paediatric and Cardiac Surgery	Congress of Cardiology	Barcelona, Spain	July 2017	<ul style="list-style-type: none"> Community-based research: The RHD model Global burden of rheumatic heart disease (RHD): Lessons learnt from echocardiography-based screening A reality – RHD should be a disease of the past (keynote) Children with heart disease and the prevention and control of non-communicable diseases (NCDs)
Algerian Paediatric Cardiology	Congress of	Algiers, Algeria	May 2017	<ul style="list-style-type: none"> Paediatric cardiology on the African continent: Collaboration, action and integration
Rheumatic heart disease: From molecules to community		Cairo, Egypt	January 2017	<ul style="list-style-type: none"> RHD: Lessons from registries
Total 2017–2019				24 keynote/invited talks during the past two years

Local and international conferences attended in the last five years:

	Keynote/Invited speaker	Other e.g. Chairing/poster
Number of local conferences attended in the last five years	15	15
Number of international conferences attended in the last five years	23	20

In detail:**5.12.1 International****2022**

1. September 2022 - United Nations General Assembly (UNGA)
 - Session name: Side Event - Unlocking the potential for collective impact: Finding the hidden benefits of partnering for NCDs
 - Unpack the ways in which measurement can inform partnership ambitions and drive collective action for NCDs (**facilitator**)
2. June 2022 - 7th Meeting of the World Society for Pediatric and Congenital Heart Surgery (WSPCHS) and the 1st Meeting of the African Society for Pediatric and Congenital Heart Surgery. Marrakesh, Morocco.
 - Session name: Symposium on Rheumatic Heart Disease: Focus On The Mitral Valve
 - Title of lecture: Rheumatic Heart Disease: African and Global Challenges in the Current Era (**speaker**)
3. June 2022 - American Society of Echocardiography (ASE) 2022 Scientific Sessions. Seattle, USA/Virtual.
 - Session name: POCUS vs Comprehensive Echocardiography in Special Populations
 - Title of lecture: A Full-Service Echocardiography Laboratory Should Be Prioritized in LMICs for Cardiac Diagnostics (**speaker**)
4. May 2022 - 7th World Heart Summit. Geneva, Switzerland.
 - Session name: Fireside chat (with people living with cardiovascular disease and patient advocates) (**moderator**)
 - Session name: Time to end RHD: From Promises to Actions (RHD side event) (**moderator**)
5. February 2022 - 49th International Congress of the Egyptian Society of Cardiology. Cairo, Egypt.
 - Session name: Rheumatic Fever and Heart Disease; State of the Art (Joint session with PASCAR)
 - Title of lecture: Eradicating RHD: what are the core research questions? (**invited speaker**)

2021

6. November 2021 - 15th Pan-African Society of Cardiology (PASCAR) Congress in Association with Kenya Cardiac Society (KCS). Mombasa, Kenya. **Invited Faculty.**
 - Session Name: Rheumatic Heart Disease– Multi Segmental Approach (**chair**)
 - Session Name: Rheumatic Heart Disease (**chair**)
 - Session Name: Congenital Cardiology and Cardiac Surgery (**panelist**)
 - Title of Lecture: Global prevalence of CHD: Birth prevalence, children of school-going age and adults with congenital heart disease: Gaps in diagnosis, care and implications (**speaker**)
7. November 2021 - 6th World Heart Summit. Mombasa, Kenya. **Co-chair.**
 - Session Name: Highlights from the global webinars (**co-chair**)
 - Opening Plenary: Africa, the new ground 0 of the obesity epidemic: how did we get here and what can the cardiovascular community do about it? (**moderator**)
 - Session Name: Closing remarks and call to action (**co-lead**)
8. August 2021 - European Society of Cardiology (ESC) Congress. Virtual.
 - Session Name: Young Investigator Awards Session in Population Sciences (**judge**)
 - Session Name: Preventing maternal sudden cardiac death (**chair**)
9. May 2021 - Association of European Paediatric Cardiologists. Gothenburg, Sweden.
 - Title of Lecture: Global Burden, Screening and Epidemiology of RHD (**invited speaker**)
 - Title of Lecture: State of the Art Closing Ceremony Lecture: Paediatric Cardiac Care with a global Health Care perspective (**invited speaker**)
10. March 2021 - PASCAR 1st Africa Heart Failure Course. Virtual. **Invited faculty.**

- Title of Lecture: Rheumatic disease and HF: Approach, Classification, and Management (**invited speaker**)
11. February 2021 - Humanitas University Cardiovascular Lectures Program. Virtual.
- Title of Lecture: Cardiac diseases of childhood: A low- and middle-income country perspective (**invited speaker**)

2020

12. October 2020 – Nigerian Cardiac Society RHD Symposium. Virtual.
- Title of Lecture: Rheumatic Heart Disease: Past, Present and Future (**keynote speaker**)
13. March 2020 - American College of Cardiology, World Congress of Cardiology. Virtual.
- Global Session: Pulmonary Hypertension: view from Rheumatic Heart Disease (**invited speaker**)
14. February 2020 – Heart Valve Society Meeting. Abu Dhabi, United Arab Emirates.
- Title of Lecture: Tissue Engineered Heart Valves: Application to Low- and Middle-Income Countries (**keynote speaker**)
 - Title of Lecture: Rheumatic Heart Disease: Past, Present, and Future (**keynote speaker**)

2019

15. November 2019 - American Heart Association. Philadelphia, USA.
- Title of Lecture: Inaugural Bongani Mayosi Memorial Lecture: Serving the needs of Africa (**keynote speaker**)
16. October 2019 - 30th Great Wall of China Cardiology Meeting. Beijing, China.
- Title of Lecture: Current challenges and future vision: RHD (**keynote speaker**)
 - Title of Lecture: GUCH: Where next? (**keynote speaker**)
17. September 2019 - European Society of Cardiology (ESC) Congress. Paris, France. (**invited speaker**)
- Session Name: Cardiovascular disease and women: global threat or macro-opportunity
 - Title of Lecture: Sex-specific differences: do they matter? The African perspective (**speaker**)
 - Session Name: Global perspective on rheumatic heart disease (**chair**)
 - Session Name: Pursuing Health Equity: how to close the gaps in health care disparities
 - Title of Lecture: Innovation and patient accessibility to treatments of cardiovascular diseases: major challenges (**speaker**)
18. May 2019 – The inaugural global Women as One Think Tank to Ignite Change in Cardiology. Paris, France.
- Title of Lecture: The approach of the South African Heart Association to Ignite change in Cardiology (**keynote speaker**)
19. April 2019 – Annual Heart Valve Society Meeting. Barcelona, Spain.
- Presidential Session: Back to the Future (**discussant**)
 - Title of Lecture: Looking forward: Worldwide access to HVD care in 2039 – myth or reality? (**keynote speaker**)
 - Session Name: The neglected mitral valve disease: A chronic need to be addressed (**moderator**)
 - Title of Lecture: Rheumatic mitral valve disease: Opportunities for intervention, innovation and care (**speaker**)
 - Session Name: Networked HVD science today and tomorrow (**discussant**)
 - Title of Lecture: Burning unsolved HVD issues (**keynote speaker**)

2018

20. December 2018 – Italian Society of Cardiology (SIC) 79th Annual Congress. Roma RM, Italy. (**keynote speaker**)
- Title of Lecture: Recent advances in clinical epidemiology of rheumatic heart disease
21. December 2018 – World Congress of Cardiology and Cardiovascular Health. Dubai, UAE.
- Session Name: Addressing the global burden of heart disease in children (**panellist**)
 - Session Name: Cardiac disease in pregnancy – meet the expert (**speaker**)
 - Round Table Discussion Topic: Unoperated congenital heart disease, women with high-risk pregnancy as pulmonary hypertension, prosthetic valve disease and contraception
 - Session Name: Cardiac impact of infectious disease (**chair**)
 - Session Name: Rheumatic fever and rheumatic valve disease cases (**speaker**)

- Title of Lecture: Case presentation: Secondary prophylaxis and anticoagulation in pregnant women
 - Session Name: Rheumatic fever: What is new, novel and innovative? (**speaker**)
 - Title of Lecture: Epidemiology and burden of disease
 - Session Name: Rheumatic heart disease – nurses taking up the challenge (**chair**)
22. November 2018 – 2nd Seminar on children’s heart disease. Algeria.
- Title of Lecture: Paediatric cardiac surgical outcomes: Lessons from PROTEA and IQIC (**speaker**)
23. August 2018 – European Society of Cardiology. Munich, Germany.
- Session Name: The health care systems facing the challenge of an ageing community. The endeavor of next decades cardiovascular practice (**discussant**)
 - Session Name: Rheumatic heart disease: a global problem
 - Title of Lecture: Delivering best care for rheumatic heart disease (**plenary speaker**)
24. May 2018 – 71st World Health Assembly. Geneva, Switzerland.
25. May 2018 – Science on the Swan. Perth, Australia.
- Title of Lecture: RHD in South Africa (**speaker**)
26. April 2018 – Heart Valve Society Annual Scientific Meeting. New York, USA.
- Title of Lecture: Do we have a REMEDY for RHD? (**speaker**)
27. February 2018 – Cardiac disease in pregnancy. Bologna, Italy.
- Title of Lecture: Women with congenital heart disease (CHD) in pregnancy – a combined cardio-obstetric clinic report from Cape Town, South Africa (**speaker**)

2017

28. October 2017 – Pan-African Society of Cardiology (PASCAR) Congress. Khartoum, Sudan.
- Workshop: Pan African Network for Paediatric Congenital Heart (PAN-PACH) (**chair**)
 - Title of Lecture: Cardiac surgery for grown-up congenital heart disease: A 12-year retrospective from a transitional country
 - Session Name: Rheumatic heart disease (**speaker**)
 - Title of Lecture: Echocardiographic screening for rheumatic heart disease: Lessons and current status
 - Session Name: Paediatric cardiology (**speaker**)
 - Title of Lecture: Mapping congenital heart disease cardiology in Africa: The need for echo and cardiac surgery (**speaker**)
29. August 2017 – European Society of Cardiology (ESC) Congress. Barcelona, Spain.
- Session Name: Rheumatic heart disease 2017
 - Title of Lecture: REMEDY: a contemporary cohort study of rheumatic heart disease (**speaker**)
30. July 2017 – World Congress of Paediatric Cardiology and Cardiac Surgery. Barcelona, Spain.
- Session Name: Through our eyes: Learning from the patient/family perspective (**speaker**)
 - Title of Lecture: Community-based research: The RHD model
 - Session Name: Imaging, rheumatic and Kawasaki bridging together session (**speaker**)
 - Title of Lecture: Global burden of rheumatic heart disease (RHD): Lessons learnt from echocardiography-based screening
 - Session Name: Rheumatic: Oral abstracts and keynote addresses (**keynote speaker**)
 - Keynote 1: Eradication of rheumatic heart disease (RHD)
 - Title of Lecture: A reality – RHD should be a disease of the past
 - Session Name: Humanitarian: Paediatric heart care in the global health agenda (**speaker**)
 - Title of Lecture: Children with heart disease and the prevention and control of non-communicable diseases (NCDs)
 - Rheumatic: Oral abstracts and keynote addresses
Moderators: Craig Sable (US) and Liesl Zühlke (**South Africa**)
31. May 2017 – Algerian Congress of Paediatric Cardiology. Algiers, Algeria. **Invited faculty.**
- Title of Lecture: Paediatric cardiology on the African continent: Collaboration, action and integration (**speaker**)
32. January 2017 – Rheumatic heart disease: From molecules to community – Plenary. Cairo, Egypt.
- Session Name: RHD Addis Ababa communiqué follow-up (**speaker**)

- Title of Lecture: Decentralisation of care for RHD
- Session Name: RHD (**speaker**)
 - Title of Lecture: RHD: Lessons from registries

2016

33. August 2016 – European Society of Cardiology (ESC) Congress. Rome, Italy.
- Session Name: Registries miscellaneous
 - Title of Lecture: Clinical Outcomes of 3343 Children and Adults with Rheumatic Heart Disease from 14 Developing Countries: 2-Year Follow-up of the Global Rheumatic Heart Disease Registry (**speaker**)
 - Session Name: Addressing rheumatic heart disease in adults
 - Title of Lecture: The burden of disease (**speaker**)
34. June 2016 – World Congress of Cardiology and Cardiovascular Health. Mexico City, Mexico. Invited faculty: congress chair/track leader.
- Session Name: World Heart Federation in partnership with the World Congress of Paediatric and Cardiac Surgery - Paediatric cardiology - Session 1 - in honour of Maria Victoria de la Cruz - 21st Century embryology and fetal echocardiography (Chair)
 - Session Name: Focus on Rheumatic Heart Disease: Implementation and Innovation (Chair)
 - Session Name: Focus on rheumatic heart disease: Toolkits and opportunities
 - Lecture: A needs assessment tool- comprehensive situational analyses (Speaker)
 - Session Name: The Dragons Den (Facilitator)
 - Session Name: RHD echo: Highly interactive session (Chair)
 - Lecture: The controversial: 2. long-term findings. Followed by interactive echo session (speaker)
35. March 2016 – 2nd Annual Heart Valve Society Meeting, New York, USA. Faculty.
- **Speaker**
36. January 2016 – 1st Sudanese Heart Association meeting in association with PASCAR Imaging Khartoum, Sudan.
- **Speaker**
37. January 2016 – DJEMBE meeting, Manchester Cardiology Research Unit. Manchester, UK. Invited faculty.
- **Speaker**

2015

38. October 2015 – Joint Pan-African Society of Cardiology (PASCAR) and Cardiovascular Society of Mauritius (CSM) Congress. Fort Balaclava, Mauritius. Invited faculty.
- **2 oral presentations**
39. March 2015 – American College of Cardiology. San Diego, USA. Invited faculty.
- **Oral presentation**

2014

40. September 2014 – European Society of Cardiology (ESC) Congress. Barcelona, Spain. Invited faculty.
- Session Name: Registry Hot Line: Valves and heart failure
 - Title of Lecture: REMEDY: The Global Rheumatic Heart Disease Registry -Clinical characteristics, sequelae and gaps in evidence-based interventions in 3310 children and adults from 14 countries (**speaker**)
41. May 2014 – World Congress of Cardiology (WCC) Scientific Sessions. Melbourne, Australia. Invited faculty.
- **7 oral presentations**
42. March 2014 – Asia Pacific Paediatric Cardiology Congress. New Delhi, India. **Invited faculty.**
43. January 2014 – 2nd All Africa Workshop of Rheumatic Fever and Rheumatic Heart Disease. Livingstone, Zambia.
- **3 oral presentations**
 - **1 debate**
 - **contributed to content of entire programme and co-organiser of entire meeting**

2013

44. May 2013 – Pan-African Society of Cardiology (PASCAR) congress. Dakar, Senegal. Invited faculty.
- 3 invited presentations
 - 1 workshop presentation
 - 1 satellite meeting (organised and run)

2012

45. April 2012 – World Congress of Cardiology. Dubai, United Arab Emirates. **Invited faculty.**
- Oral presentations including press boot and exhibition presentation
46. March 2012 – NCD child. Invited faculty.
- Oral and poster presentation
47. February 2012 – CHOP Paediatric Cardiology. Florida, USA. Faculty.
- Oral presentation

2011

48. October 2011 – 13th Annual Conference of the Paediatric Cardiac Society of India. Trivandrum, India. **Invited faculty.**
- 2 oral presentations
49. June 2011 – 7th Global Forum on Humanitarian Medicine in Cardiology and Cardiac Surgery. Geneva, Switzerland. **Invited faculty.**
- 2 oral presentations
50. May 2011 – 10th PASCAR (Pan-African Society of Cardiology) congress and 3rd All Africa conference on heart disease, stroke and diabetes. Kampala, Uganda.
- Oral presentation
 - Satellite meeting (**organised and run**)

5.12.2 Local

2020

1. June 2020 - CIDRI-AFRICA 3rd Annual Scientific Meeting
- Session: Presentations from new Contributing Investigators

2019

2. November 2019 – UCT O&G Refresher Course. DoubleTree by Hilton Hotel, Cape Town. **(Faculty)**
- Title of Lecture: Matters of the heart – what to do in pregnancy
2. May 2019 – SAMRC – FORTE Symposium. SAMRC Conference Centre, Cape Town. **(Faculty)**
- Title of Lecture: Resolving the role of healthcare system factors for care gaps in adolescents with complex chronic conditions: An international, multilevel study
3. February 2019 – PACSA – 42nd Annual UCT Paediatric Refresher Course. Cape Town. **(Faculty)**
- Title of Lecture: The end of rheumatic heart disease?

2018

4. November 2018 – CASSA – Cardiothoracic Anaesthesia Society of South Africa. **(Faculty)**
- Title of Lecture: Rheumatic heart disease: Epidemiology of the developing world
5. November 2018 – PACSA – Cardiothoracic Anaesthesia Society of South Africa. **(Faculty)**
- Title of Lecture: Paediatric cardiac surgical outcomes
6. October/November 2018 – CMR Congress of South Africa. Cape Town. **(Faculty)**
- Title of Lecture: Congenital heart disease in Sub-Saharan Africa.
7. October 2018 – South African Heart Association Congress. Sun City, Johannesburg. **(Faculty)**

- Title of Lecture: Key questions and proposed solutions for screening for RHD in asymptomatic populations
- Title of Lecture: Joys and challenges of a researcher parent
- Title of lecture: Highlighting the academic achievements of Professor Bongani Mayosi – an introduction

2017

8. 2017 – IDM. Cape Town. **(Faculty)**
 - Title of Lecture: Joys and challenges of a researcher parent
 - Title of Lecture: Balancing family and research
9. October 2017 – Department of Medicine Research Day. Cape Town. **(Faculty)**
 - Title of Lecture: Joys and challenges of a researcher parent
 - Coordinator of the Research Day Dragons Den
10. April 2017 – South African and British Cardiovascular Society. Cape Town. **(Faculty)**
 - Title of Lecture: Prevention, management and control of rheumatic heart disease: Are we at the limits?

2016

11. September 2016 – South African Heart Association meeting. **(Faculty)**
 - **2 oral presentations**
12. February 2016 – EchoChat Meeting. Red Cross War Memorial Children's Hospital, Cape Town. **(Faculty)**
 - **Oral presentation**

2015

13. October 2015 – South African Heart Association Congress. Sun City, Johannesburg. **(Faculty)**

2014

14. October 2014 – South African Heart Association Congress. Durban International Convention Centre, Durban. **(Faculty)**
15. September 2014 – South African Paediatric Association Congress. Cape Town. **(Faculty)**

2013

16. February 2013 – 6th World Congress of Paediatric Cardiology and Cardiac Surgery. Cape Town.
 - **2 invited presentations**
 - **1 satellite meeting (organised and run)**
17. December 2013 – Centre for High Performance Computing Congress. Durban. **(Faculty)**
 - **Keynote address**
 - **Oral presentation**

2012

18. 2012 – PVRI 7th Annual Meeting. Cape Town. **(Faculty)**
 - **Oral presentation**

2011

19. July 2011 – South African Heart Association Congress. East London. **Invited faculty.**

2010

20. November 2010 – South African Heart Association Congress. Sun City, Johannesburg. **Invited faculty.**

2009

21. November 2009 – South African Heart Association Congress. Sun City, Johannesburg. **Invited faculty.**

2007

22. November 2007 – Paediatric Anaesthetic Congress. **Invited faculty.**

- Title of Lecture: ALCAPA: From critical to cured

23. November 2007 – SA Heart Association Congress.

- Title of Lecture: ALCAPA: From critical to cured

2001

24. February 2001 – Paediatric Refresher Course. Cape Town. **Invited faculty.**

2000

25. November 2000 – SA Heart Association Annual Conference. Stellenbosch.

26. October 2000 – Red Cross Children’s Hospital Research Day. Cape Town.

- Title of Lecture: ALCAPA: A review

1999

27. October 1999 – Red Cross Children’s Hospital Research Day. Cape Town.

- Title of Lecture: Hyperlipidemia in renal transplant patients

5.13 Refresher/educational courses

- May 2022 - International Conference of Harmonization (ICH GCP E6 R2) and South African Good Clinical Practice (SAGCP2022) Online Refresher Course. UCT Clinical Research Centre, Cape Town.
- February 2019 - GCP Refresher Course. Crede, Cape Town.
- February 2019 - 42nd Annual UCT Paediatric Refresher Course: “Elimination of Acute Rheumatic Fever”.
- May 2018 - Cardiac Society. “Medical students: Mind, body and soul”.
- March 2018 - 10th Paediatric Annual Conference: “Rheumatic Heart Disease in Africa today”.
- February 2018 - 41st Annual UCT Paediatric Refresher Course: “An approach to chest pain”.
- February 2016 - EchoChat, UCT.
- February 2016 - GCP Refresher Course. Crede, Cape Town.
- November 2015 - Monitoring and Evaluation Course. Children’s Heart Disease Research Unit.
- June 2015 - Echo Masterclass and Teaching Seminar. Lusaka, Zambia.
- March 2015 - CathChat, UCT.
- February 2014 - Physicians Conference, UCT.
- November 2013 - Research Masterclass. Addis Ababa, Ethiopia.
- September 2013 - Anaesthetic Refresher Course.
- August 2013 - GCP Refresher Course. Upper Eastside Hotel, Cape Town.
- May 2013 - Student Cardiac Society, UCT.
- September 2012 - Cardiology Refresher Course. Cochin, India.
- July 2012 - Echo Masterclass Seminar. Cape Town.
- April 2012 - Life Healthcare. Vincent Pallotti, Cape Town.
- March 2012 - Paediatric Refresher Course. Vineyard Hotel, Cape Town.
- October 2012 - Clinicare GP Refresher Course. Bellville, Cape Town.
- May 2011 - International Day of the Midwife Conference.
- November 2011 - Primary Health Care Directorate. Gauteng.

- August 2011 - Workshop on rheumatic fever and rheumatic heart disease. Upper Eastside Hotel, Cape Town.
- May 2011 - School Health Nurses Refresher Course. Cape Town.
- December 2010 - World Health Organization/National Department of Health joint workshop.
- April 2010 - Life Healthcare. Vincent Pallotti, Cape Town.
- November 2010 - WHF Criteria Workshop. Bangkok, Thailand.

5.14 Chairing or organising of conferences

1. March 2023 – American College of Cardiology (ACC) together with the World Congress of Cardiology (WCC)
 - **Member of the Scientific programme committee:** Congenital Heart Disease
2. April 2022 – American College of Cardiology (ACC)
 - **Abstract reviewer** (responsible for reviewing 74 abstracts for ACC.22)
3. March 2020 – American College of Cardiology (ACC) together with the World Congress of Cardiology (WCC) meeting (ACC.20/WCC).
 - **Member of the programme committee** (responsible for developing and finalising the overall education program for ACC.20/WCC)
4. March 2019 – Inaugural PROTEA Workshop. Cape Town, South Africa (130 delegates).
 - **Organiser and co-funder**
5. 2018 – World Congress of Cardiology and Cardiovascular Health. Dubai, UAE.
 - **Chair:** Cardiac impact of infectious disease
 - **Chair:** Rheumatic heart disease – nurses taking up the challenge
6. 2017 – World Congress of Paediatric Cardiology. Istanbul, Turkey.
 - **Scientific committee:** Rheumatic heart disease and chagas
 - **Programming, scientific content, session chairing and presentations**
7. 2016 – World Congress of Cardiology and Cardiovascular Health. Mexico City, Mexico (6 000 delegates).
 - **Track leader:** Rheumatic heart disease and chagas
 - **Track leader:** Paediatric cardiology and cardiac surgery
 - **Scientific committee**
 - **Programming, scientific content, session chairing and presentations**
8. 2016 – 4th All-Africa Meeting on RF/RHD. Addis Ababa, Ethiopia (80 delegates).
 - **Programming, scientific content and presentations**
9. 2015 – 3rd All-Africa Meeting on RF/RHD. Addis Ababa, Ethiopia (60 delegates).
 - **Programming, scientific content and presentations**
10. 2014 – 2nd All-Africa Meeting on RF/RHD. Livingstone, Zambia (60 delegates).
 - **Programming, scientific content and presentations**
 - **Inclusive of Zambia Minister of Health**
11. 2013 – 6th World Congress of Paediatric Cardiology and Cardiac Surgery. Cape Town, South Africa (3 100 delegates).
 - **Director and secretary of World Congress Company**
 - **Local organising committee member**
 - **Track leader for acquired heart disease and health systems**
 - **Abstract manager of more than 1 400 abstracts**
 - **Multiple chairing and organising commitments**

12. June 2013 – Emerging leaders in cardiovascular disease management and prevention: The African Perspective World Heart Federation, invited presentation, McMaster University. Hamilton, Canada.
13. February 2013 – 2nd RHD Forum (150 delegates).
 - **Organiser and scribe for published proceedings**
14. November 2013 – RHD Training Workshop. Addis Ababa, Ethiopia.
 - **Chair**
 - **Training and several presentations on echocardiography, as well as research principles**
15. November 2012 – Remedy Investigator Meeting. Johannesburg, South Africa (30 delegates).
 - **Chair**
 - **Training and several presentations**
16. August 2011 – RHD Meeting. Upper Eastside Hotel, Cape Town (50 delegates).
 - **Chair**
 - **Training and several presentations**
17. May 2011 – Remedy Investigator Meeting. Uganda (30 delegates).
 - **Chair**
 - **Echo training and several presentations**
18. November 2010 – Remedy Investigator Meeting. Johannesburg, South Africa (30 delegates).
 - **Chair**
 - **Training and several presentations on echocardiography, as well as research principles**
19. February 2010 – NCRP – Cardiovascular and metabolic disease. Zevenwacht Estate, Stellenbosch.
 - **Course on health research methodology: Cardiovascular and metabolic field (local invited faculty)**

5.15 Poster presentations

2022

1. Spracklen TF, Mendelsohn SC, Butters C, Facey-Thomas H, Stander R, Erasmus M, Day J, Scott C, **Zühlke L**, Scriba TJ, Webb K. Characterising a unique 27-gene signature of Multisystem Inflammatory Syndrome in Children in South African patients. Paediatric Society of the African League Against Rheumatism congress; Virtual, June/July 2022.

2021

2. Abrams J, Telford L, Engel K, Daniels R, Dale JB, Okello E, Beaton A, Engel ME, **Zühlke LJ**. Validating Rapid Point-of-Care Strep A Test Accuracy in Sub-Saharan Africa: Pilot Results from Two Sites. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. November 2021.
3. Saacks NA, Spracklen TF, Eales JE, Aldersley T, Lawrenson JB, Cupido BJ, Comitis GAM, De Decker R, Fourie B, Swanson L, Joachim A, Ramesar RS, Shaboodien G, Keavney BD, **Zühlke LJ**. Investigation of Copy Number Variation in South African Patients with Congenital Heart Defects. ESC Cardio Genomics Conference; March 2021.

2020

4. Moore R, Ferris A, Perkins S, Joachim A, De Decker R and **Zühlke L**. International Normalised Ratio Monitoring in Children: Comparing the Accuracy of Portable Point-Of-Care Monitors to Standard of Care Laboratory Monitoring at Red Cross War Memorial Children’s Hospital. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. November 2020. **(Best poster winner)**
5. Mpisane F, Brooks A, Perkins S, Basera W and **Zühlke L**. Post cardiac surgery sternal wound sepsis burden, risk factors and outcomes at Red Cross War Memorial Children’s Hospital, Cape Town, South Africa: A five-

year experience. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. November 2020.

2019

6. Mahtab S, Zar H, Joubert SJ, Asafu-Agyei NA, Luff NJ, Jele N, **Zühlke LJ**, Myer L and Jao J. Endothelial dysfunction in South African youth with perinatally acquired HIV on ART. Conference on Retroviruses and Opportunistic Infections (CROI); Seattle, Washington. March 2019.
7. Abrams J, Watkins DA, Abdullahi LH, **Zühlke LJ**, Engel ME. Integrating the Prevention and Control of Rheumatic Heart Disease into Country Health Systems: A Systematic Review. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. October 2019.
8. Perkins S, White A, Mwangi J, and **Zühlke L**. The RHD Action Small Grants Programme: Small Investment, Big Return! 20th Annual SA Heart Congress; Sandton, Johannesburg. October/November 2019.

2018

9. Rossouw B, Morrow B, **Zühlke LJ**, Meiring M and Argent AC. Single centre in-hospital mortality and terminal care of paediatric cardiac patients in a middle-income country. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. October 2018.
10. Telford LH, Abdullahi LH, Ochodo EA, **Zühlke LJ** and Engel ME. Standard echocardiography versus handheld echocardiography for the detection of subclinical rheumatic heart disease: A systematic review and meta-analysis of diagnostic accuracy. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. October 2018.
11. Perkins S, Longenecker CT, **Zühlke LJ**, Beaton A, Okello E, Natuhurira I, Charles F, Dewyer A, Watkins D and Webel A. Pilot testing the RHD Action Needs Assessment Tool in a live environment. 19th Annual SA Heart Congress; Sun City, Johannesburg. October 2018.
12. Perkins S, Longenecker CT, **Zühlke L**, Beaton A, Okello E, Natuhurira I, Charles F, Dewyer A, Watkins D, Webel A. Pilot Testing the RHD Action Needs Assessment Tool in a Live Environment. World Congress of Cardiology (WCC); Dubai, UAE. December 2018.
13. Harrison M, Lewandowski L, **Zühlke LJ** and Scott C. Paediatric systemic lupus erythematosus patients in South Africa have high prevalence and severity of cardiovascular manifestations. European Paediatric Rheumatology Congress; Lisbon, Portugal. September 2018.

2017

14. Comitis G, Fourie B, Kraus S, Joachim A, De Decker R, **Zühlke LJ** and Lawrenson J. Characteristics of children presenting with cardiomyopathy in an African setting – initial findings of the Imhotep registry. 7th World Congress of Paediatric Cardiology and Cardiac Surgery (WCPCCS); Barcelona, Spain. July 2017.
15. Telford L, **Zühlke LJ**, Ochodo E and Engel M. A protocol for a systematic review of the diagnostic accuracy of hand-held echocardiography for the detection of rheumatic heart disease in school-aged children and adolescents. 7th World Congress of Paediatric Cardiology and Cardiac Surgery (WCPCCS); Barcelona, Spain. July 2017.
16. Telford L, **Zühlke LJ**, Ochodo E and Engel M. Diagnostic accuracy of hand-held echocardiography for the detection of Rheumatic Heart Disease in school-aged children and adolescents: A systematic review protocol. 43rd Annual UCT Department of Medicine Research Day; Cape Town. October 2017.
17. Smit I, Perkins S, Aldersley T, Keavney B, Revell A, De Decker R, Lawrenson J, Comitis G, Fourie B, Swanson L, Cupido B, Shaboodien G, Ramesar R, Mayosi B, Human P and **Zühlke LJ**. The PROTEA study: A CHD cohort for aetiological, intervention and outcome studies. UCT Department of Paediatrics and Child Health Annual Research Day; Cape Town. October/November 2017.
18. **Zühlke LJ**, Swanson L, Vergotine R, Lawrenson J, Comitis G, Fourie B, De Decker R, Brooks A and Hewitson J. Cardiac surgery January – June 2017: The International Quality Improvement Collaborative (IQIC) experience. Department of Paediatrics and Child Health Annual Research Day; Cape Town. October/November 2017.
19. Perkins S, Watkins D and **Zühlke LJ**. Development of a comprehensive RHD Needs Assessment Tool (NAT) for resource-limited settings. Stanford Medicine X Conference. Palo Alto, California. September 2017.

2016

20. **Zühlke LJ**, Machila E, Lungu JC, Schwaninger S, van Dam J, Spector JM, Tadmor B and Musuku J. Task shifting: Proficiency of general radiography technicians in detecting rheumatic heart disease. World Congress of Cardiology and Cardiovascular Health (WCC); Mexico City Mexico. June 2016. *Global Heart*.
21. El Sayed A, Ibrahim AS, Elhassan HHM, **Zühlke LJ**, Engel ME, Karthikeyan G, Teo K, Yusuf S and Mayosi BM on behalf of the REMEDY investigators. The global rheumatic heart disease study (REMEDY) – data from Sudan. World Congress of Cardiology and Cardiovascular Health (WCC); Mexico City, Mexico. June 2016. *Global Heart*.
22. Sanyahumbi AS, Aliku T, Carapetis JR, Fakakovikaetau T, Karlsten M, Musuku J, Viali S, Wilson N, Penny DJ and **Define RHD Registry Investigators**. The concept and design of DEFINERHD: A study to evaluate the progression of subclinical rheumatic valve lesions diagnosed through echocardiographic screening. World Congress of Cardiology and Cardiovascular Health (WCC); Mexico City, Mexico. June 2016. *Global Heart*.
23. Remenyi B and the **World Heart Federation criteria investigators**. Validation of the World Heart Federation evidence-based echocardiographic criteria for rheumatic heart disease. World Congress of Cardiology and Cardiovascular Health (WCC); Mexico City, Mexico. June 2016. *Global Heart*.
59. **Zühlke LJ**, Brittain K, Bekker L-G, Rabie H, Nuttall J, Eley B, Roux P, Myer L and Zar HJ for the Cape Town Adolescent Antiretroviral Cohort. Abstract 854: Cardiovascular disease biomarkers in perinatally HIV-infected adolescents on ART. 23rd Conference on Retroviruses and Opportunistic Infections (CROI), Boston, Massachusetts. 22-25 February 2016.

2015

24. **Zühlke LJ**, Engel ME, Nkepu S, and Mayosi BM. Evaluation of a focused protocol for handheld echocardiography and computer-assisted auscultation in detecting latent rheumatic heart disease in scholars. Pan-African Society of Cardiology (PASCAR) Congress & Cardiovascular Society of Mauritius; Balaclava, Mauritius. October 2015. *CVJA*.
25. **Zühlke LJ**, Engel ME, Watkins D and Mayosi BM. Incidence, prevalence and outcome of rheumatic heart disease in South Africa: A systematic review of contemporary studies. Pan-African Society of Cardiology (PASCAR) Congress & Cardiovascular Society of Mauritius; Balaclava, Mauritius. October 2015. *CVJA*.
26. Shato T, Hermanus T, Engel M, De Vries J and **Zühlke LJ**. Protocol: What factors influence health-seeking behaviour and adherence to secondary prophylaxis for patients with sore throat, acute rheumatic fever and rheumatic heart disease? Pan-African Society of Cardiology (PASCAR) Congress & Cardiovascular Society of Mauritius; Balaclava, Mauritius. October 2015. *CVJA*.
27. Hermanus T, Shato T, Engel M, **Zühlke LJ** and De Vries J. A rapid ethnographic assessment approach to exploring patient and provider experience in rheumatic heart disease. Pan-African Society of Cardiology (PASCAR) Congress & Cardiovascular Society of Mauritius; Balaclava, Mauritius. October 2015. *CVJA*.

2014

28. Sliwa-Hahnle K, Libhaber E, Elliott C, Osmann A, Momberg Z, **Zühlke L**, Lachmann T, Anthony J. Preventing and managing cardiac disease in maternity- a model of care in a low resource set up. European Society of Cardiology (ESC) Congress; Barcelona, Spain. September 2014.

2013

29. Nkepu S, Engel ME, Lemmer C and **Zühlke LJ**. Development of the vanguard demonstration site for RHD among school-aged learners in the Western Cape, South Africa. 6th World Congress of Paediatric Cardiology and Cardiac Surgery (WCPCCS); Cape Town. February 2013.

2012

30. **Zühlke LJ**, Engel ME and Mayosi BM. ASAP as a roadmap for non-communicable disease. NCD Child; San Francisco, USA. March 2012.

2011

31. **Zühlke LJ**, Mayosi B, Joachim A and Myer L. Computer-assisted auscultation as a screening technique. SA Heart Congress; East London. July 2011. **(Best poster winner)**
32. Nekpu S, Engel ME, Lemmer C and **Zühlke LJ**. Development of the vanguard demonstration site for RHD screening among school-aged learners in the Western Cape, South Africa. The 10th Pan-African Society of

Cardiology (PASCAR) Congress and the Uganda Heart Association Congress; Uganda. May 2011. CVJA: p. S16–S16.

2009

33. **Zühlke LJ**, Brooks A, Duffy R and Castelyn C. Focus on 2007: A clinical audit of the Red Cross War Memorial Children’s Hospital Paediatric Cardiac Surgery Programme (abstract). 5th World Congress of Paediatric Cardiology and Cardiac Surgery (WCPCCS); Cairns, Australia. June 2009.
34. **Zühlke LJ**, Kraan R and Engel M. An iceberg in Africa – Children post-surgery for rheumatic heart disease. 5th World Congress of Paediatric Cardiology and Cardiac Surgery (WCPCCS); Cairns, Australia. June 2009.

2008

35. Geldenhuys A, **Zühlke LJ**, Langtree K, Mashele G, Human P and Brooks A. A review of the practice of a staged approach for biventricular repair in Red Cross Children’s Hospital over the past six years: Is the placement of a pulmonary artery band safer in perceived high-risk cases? 9th SA Heart Association Congress; Durban. November 2008. CVJA: p.S11–S11.

2001

36. **Zühlke LJ**. An epidemic of anomalous left coronary artery from pulmonary artery – the Cape Town experience. 3rd Annual Congress in Paediatric Cardiology and Cardiothoracic Surgery; Toronto, Canada. May 2001.
37. **Zühlke LJ**. Milrinone Therapy at Red Cross Hospital: A retrospective review. Red Cross Children’s Hospital Research Day; Cape Town. October 2001.

5.16 Other research

5.16.1 Research projects and scholarships

Year	Title of project award	Grant source	Funding amount	Role	Collaborators
2022	Mid-Career Scientist Programme (MCSP)	SAMRC	R4.2 million	Principal applicant	• Prof Engel
	Support for rated and unrated researchers (2020, 2021, 2022)	NRF	R900 000	Principal applicant	• Prof Keavney
2021	COVID-19-related financial relief for soft-funded staff in research posts	UCT	R750 000	Principal applicant	
	Support for rated and unrated researchers (2020, 2021, 2022)	NRF	R900 000	Principal applicant	• Prof Keavney
2020	COVID-19 research	IDM	R920 000	Principal applicant	• Prof Chris Scott • Dr Kate Webb • Dr Thomas Scriba
	Support for rated and unrated researchers (2020, 2021, 2022)	NRF	R900 000	Principal applicant	• Prof Keavney

2019	Conference grant	NRF	R900 000	Principal applicant	<ul style="list-style-type: none"> • South African Heart Association
	Research Partner Development/ Pump Priming Project	University of Manchester - GCRF	£38 365	Co-applicant	<ul style="list-style-type: none"> • Prof Engel • Prof Keavney
	Transdisciplinary workshop	University of Manchester - GCRF	£49 706	Principal applicant	<ul style="list-style-type: none"> • Prof Engel • Prof Keavney
	Capacity building to support innovation in LIMCs	University of Manchester - GCRF	£36 949	Principal applicant	<ul style="list-style-type: none"> • Prof Engel • Prof Keavney
2018	African Research Leader Award	MRCUK/Dfid	£750 000	Principal investigator	<ul style="list-style-type: none"> • Prof Keavney
	Conference grant	NRF	R900 000	Principal applicant	<ul style="list-style-type: none"> • South African Heart Association
	Conference grant	UCT	R20 000	Principal applicant	
2017	A North-South Partnership in CHD	MRCUK	£605 784	Co-applicant (South) Principal investigator	<ul style="list-style-type: none"> • Prof Keavney • Prof Mayosi
	Competitive Support for Unrated Researchers (CSUR)	NRF	R900 000	Principal applicant	<ul style="list-style-type: none"> • Prof Mayosi • Prof Moons
	Start-up award	UCT	R20 000	Award	
	Adole 7C	MRC/Forte	R3 million	Co-applicant (South) Principal investigator	<ul style="list-style-type: none"> • Prof Mayosi • Prof Moons • Prof Pepeta
	Newton Djembe	Newton	£1 million	Co-applicant (South)	<ul style="list-style-type: none"> • Prof Engel • Prof Keavney • Prof Mayosi
2015	Hamilton Naki Post-Doctoral Scholarship	Netcare	R600 000	Award	<ul style="list-style-type: none"> • Prof Mayosi
	Astra-Zeneca Grant	Astra-Zeneca	R525 000	Principal applicant	<ul style="list-style-type: none"> • Prof Zar • Prof Myer
2014	RHDAction	Medtronic	\$6 million	Co-applicant	<ul style="list-style-type: none"> • Prof Carapetis
2013	CTAAC	NIH	-	Co-applicant	<ul style="list-style-type: none"> • Prof Zar • Prof Myer
2012	Hamilton Naki Clinical Scholarship	Netcare	R2.1 million	Principal applicant	<ul style="list-style-type: none"> • Prof Mayosi
	Thrasher Early Career Award	Thrasher	\$25 000	Principal applicant	<ul style="list-style-type: none"> • Prof Mayosi

2011	MRC Self-Initiated Study Grant	MRC	R1.08 million	Principal applicant	
2010	CIDRI Research Officer Award	Wellcome	R1.2 million	Award	<ul style="list-style-type: none"> • Prof Mayosi • Prof Zar
	Awareness Grant	Medtronic	\$100 000	Co-applicant	<ul style="list-style-type: none"> • Prof Mayosi
	SIR	MRC	R408 000	Principal applicant	<ul style="list-style-type: none"> • Prof Mayosi
	Fogarty International Clinical Research Fellowship	NIH	\$37 500	Principal applicant	<ul style="list-style-type: none"> • Prof Mayosi
2009	ASAP	Else-Kroner	€346 269	Co-applicant	<ul style="list-style-type: none"> • Prof Mayosi • Prof Engel
2008	Excellence Award	Discovery Foundation	R500 000	Principal applicant	<ul style="list-style-type: none"> • Prof Mayosi

5.16.2 Funding awards 2017 - 2022

Year	ZAR R	USD \$	GBP £	EURO €	Total in ZAR
2022	R5 100 000				R5 100 000
2021	R1 650 000				R1 650 000
2020	R1 820 000				R1 820 000
2019	R900 000		£125 020		R3 418 652
2018	R920 000		£750 000		R16 029 493
2017	R3 920 000		£1 605 784		R23 154 463
Total	R14 310 000	\$0	£2 480 804	€ 0	R51 172 607

5.17 Other scholarly activities, e.g. editorial board or other reviewing activities

5.17.1. Editorial boards

- Cochrane Heart Group - Content Editor
- JACC: Advances - Editorial Consultant
- NEJM Evidence - Editorial Board
- Frontiers in Cardiovascular Medicine - Associate Editor for Cardiovascular Epidemiology & Prevention
- Nature Reviews Cardiology - Advisory Board
- Heart University and Children's HeartLink: Pediatric and Congenital Cardiac Care in Resource-Limited Settings Lecture Series - Editorial Board
- Lancet Commission for Cardiovascular Disease in Women - Commissioner
- International Journal of Cardiology - Editor
- SA Heart Journal - Editorial Board
- JACC Clinical Cases - Senior Associate Editor
- JACC: Case Reports - Senior Editorial Consultant (Term: April 1, 2019 – June 30, 2020)
- Cochrane Reviews: Cardiology - Editor

5.17.2. Reviewer

International

- African Health Sciences
- American Journal of Cardiology

- Archives of Disease in Childhood
- Atlas Quality Assurance and Publication Committee
- British Journal of Medicine and Medical Research
- British Medical Journal
- British Medical Journal Open
- Cardiovascular Diagnosis and Therapy
- Cardiovascular Journal of Africa
- Circulation
- European Journal of Heart Failure
- Global Heart
- Heart
- Heart Asia
- Indian Heart Journal
- Journal of Africa Health and Sciences
- Journal of Health, Population and Nutrition
- Journal of Medical Economics
- Journal of Paediatric Sciences

Local

- South African Medical Journal
- South African Heart Journal
- South African HIV Medicine Journal
- Southern African Journal of Critical Care

6 Leadership and management/administration

6.1 Contribution

6.1.1 Programme/course/convenorship

None

6.1.2 Departmental duties/initiatives (3 years)

Year(s)	Committee	Role	Brief description
2022	IDM	Affiliate member	On committee
2020	FHS Research Finance Working Group	Member	Engaging with Deans EXCO, Deans Management Committee (DMC) and the Faculty Research Committee, the working group mandate is to set ways to address the challenges and seek to find solutions
	IDM Strategic Think Tank	Member	Representing clinical science, contribution including providing high-level strategic advice on planning for the future of the IDM
	Transformation Action Group (TAG)	Vice Chair	New position, substantial contribution, including developing and implementing an anti-harassment policy, curating a biweekly COVID-19 support/resource newsletter and obtaining funding to commence support
2019	Annual Research Days Committee	Chair	Introduced several new aspects into the program, including

	Faculty CPD Committee	Chair	ensuring diversity in invited faculty (2019, all of colour). Focus on integrated research and family Chair for 4 years, committee of only 2 in past year. Created a new committee across two departments and also then retired as chair to allow for new incumbents
	MMed Committee	Co-Chair	Reviewing of MMed protocols
	Post-Graduate Committee	Member	New position, on support sub-committee
	Departmental Research Committee	Member	On committee
	Transformation Action Group (TAG) EE rep training	Member	On committee, substantial contribution, including developing a supported development program, analysing and presenting the anti-harassment campaign and obtaining funding to commence support
		Member of the APFP Committee	On committee
2018	Faculty CPD Committee	Chair	In position since on committee
	MMed Committee	Co-Chair	Reviewing of MMed protocols
	Post-Graduate Committee	Member	New position, on support sub-committee
	Departmental Research Committee	Member	On committee, substantial contribution
	Transformation Action Group (TAG)	Member	On committee, substantial contribution, including developing a supported development program and obtaining funding to commence support
	Annual Research Days Committee	Chair	Introduced several new aspects into the program, including ensuring diversity in faculty
	APFP Committee	Member	On committee
2017	Annual Research Committee	Member	On committee, substantial contribution
	Departmental Research Committee	Member	On committee, substantial contribution
	Transformation Action Group (TAG)	Member	On committee, substantial contribution
	APFP Committee	Member	On committee

6.1.3 Faculty committees/initiatives (3 years)

Year(s)	Committee	Role	Brief description
2017–2019	Faculty CPD Committee	Chair	In position since on committee

6.1.4 Any strategic partnerships (Provincial/National/International) at any level

Provincial:

Department of Health: Minister Nomafrench Mbombo

Heart and Stroke Foundation of South Africa: CEO Prof Naidoo

National:

Department of Health: Ministry of Health Dr Zweli Mkhize (on the role of CVD in NCD/Communicable Disease)
Dr Reddy, Ms Singh, previously Minister Motsoaledi
Heart and Stroke Foundation of South Africa: CEO Prof Naidoo

International:

American College of Cardiology
European Society of Cardiology
Reach
WHO - Africa
WHO - Central
World Heart Federation

6.1.5 Contribution to transformation

The need for supported development has been expressed within this and many other departments within our university. Paediatric registrars have recently been exposed to a more structured mentorship process, with some success. However, facilitated staff development and structured mentoring are currently not offered to consultant staff. The Transformation Action Group (TAG) has recommended that a staff development mentorship program be developed and piloted in order to address the needs of consultant staff and provide an environment conducive to increasing potential and deepening a positive work experience.

The specific goals of such a program are:

1. To provide support, increase satisfaction and ensure retention of faculty members interested in an academic career (consisting of the tetrad of clinical service/teaching, university leadership and management, social responsiveness, and research).
2. To provide guidance and mentorship to staff members.
3. To identify specific areas of need through the mentorship and development program, and to advocate for assistance/support in these areas.
4. To provide an integrated service for staff support, which is aligned to the goals and vision of the department and the university and complimentary to all other transformation efforts.

I was successful in applying for funding for this project and am in the process of completing the final aspects of planning to commence the supported development. This includes:

1. Creating an up-to-date organogram for the Department of Paediatrics in order to provide guidance to consultants (this will also be used to guide the succession plan within the department).
2. Funds to improve admin assistance to TAG, to the SDP and to mentorship initiatives within the department.
3. Present findings of a fact-finding survey (after completing analysis) to management and at several staff fora.

7 Social responsiveness

7.1 Professional services

- Member of a unique multidisciplinary team managing maternal cardiovascular concerns during pregnancy and post-partum: A unique clinic established under the leadership of Prof Karen Sliwa-Hahnle – with multiple manuscripts and an oral presentation at premier Cardiology congresses.
- Ran the first Grown-up Congenital Heart Disease (GUCH) clinic at Groote Schuur Hospital before its inclusion into the current cardiology outpatient system. Key member of the GUCH team and ran the first visitor GUCH clinic – Same Face Different Place – with an adult cardiology colleague. Also instrumental in facilitating training sabbatical for this colleague in GUCH.
- National expertise in rheumatic heart disease and congenital heart disease and sees, consults, and responds to emails/posts and queries regarding these two specialities on a regular basis. This includes being on the European Society of Cardiology Grown-Up Congenital Heart Disease working group, the Valvular Heart Disease Working Group, the International Adult with Congenital Heart Disease Research Group, and the National Guidelines for Infective Endocarditis working group.
- Strong contributor to national and international reputation of rheumatic and congenital heart disease through active participation, as well as national and international leadership positions in societies and professional associations.

- Introduced congenital and grown-up congenital heart disease for the first time into the World Congress of Cardiology, with great success and lauded as a major advocacy development for children with heart disease.

7.2 Community outreach

- Initiated and coordinated a continuing education workshop for School Health Nurses in the Western Cape, one held at the River Club, Mowbray, and the other at Karl Bremer Hospital. In addition, has held report-back meetings to nursing staff at clinics participating in current research. Involved in establishing a community advisory group for RHD and supporting a patient and parents support group for CHD.
- Regular contributor to the Heart and Stroke Foundation website, as well as a moderator of the Paediatric Cardiac Society website with content and information.
- YouTube videos include the POPSicle study (1 107 people reached) World Congress of Cardiology (208 people reached) and Twitter feed of [KidsHeartSA](#) and [RHDAfrica](#) (890 and 156 followers respectively). Facebook page of [PCSSA](#) 1 836 likes, Facebook page of [SA Heart](#) 14 406 likes.
- Contributes significantly to input into rheumatic and congenital heart disease awareness and public information. Advocate for sore throat and rheumatic heart disease, including youth television shows, such as Hectic Nine-9, radio (including SABC medical programmes), social media, newspapers and personal appearances at schools, hospitals and community centres. Speaker at Wellness Fair events, local clinics and on podcasts (WHF Conversations from the Heart).
- President of Reach, a technical support and policy translation initiative for RF/RHD where the aim is to identify, describe and disseminate solutions for this neglected disease and to reduce burden on vulnerable populations around the world. As a collaborative organisation, Reach seeks to partner with a broad range of stakeholders – including clinicians, other disease communities, academics, funders, governments, industry and people living with RHD – to achieve common goals. In this capacity, she regularly engages with stakeholders from all over the world, most recently Angola, Uganda, Tanzania, Bhutan, China and Bangladesh.
- Played a crucial role in the establishment of the Stop Rheumatic Heart Disease ASAP Demonstration Site in the Vanguard communities (i.e. Bonteheuwel and Langa) of Cape Town. The successful implementation of this project has required sustained engagement with several community groups, including school principals and the health committees in this area. The community engagement activities have led to successful implementation of school screening activities using expensive equipment in a custom-built mobile clinic without fear in these communities.
- Regularly consulted by civil society (laypeople, parents and support groups), private and governmental organisations regarding congenital and rheumatic heart disease.
- Presented at the last four community feedback to patients days, held during Rheumatic Fever Week, sharing the results of the past two major studies and providing patient support information, sharing videos, materials and developing the entire concept. This was presented in September 2017 again at the first patient conference, in conjunction with a community and patient advisory group, the first of its kind.
- Convened a qualitative research consortium in Mexico City to propose a comprehensive research agenda to explore the lived experience of RHD, a first meeting was held in Cape Town with attendees from Cape Town, Australia, Uganda and Tanzania.
- Convened, organised, and funded three unique events (“Listen to My Heart”) in Cape Town, which resulted in patients and families meeting within a medical conference in order to share experiences followed by a qualitative research consortium to propose a comprehensive research agenda to explore the lived experience of RHD, with attendees from Cape Town, Australia, Uganda and Tanzania. The first meeting focused on RHD, the second on CHD and the third on teenagers and adolescents with heart conditions.

7.3 Policy input and advocacy of policy reform

- Attended the consultative meeting on strengthening the supply of quality assured BPG for sustainable access through global procurement mechanisms, co-organized by WHO and WHF, on 27 January 2021.
- Established strategic partnerships and relationships with the Provincial Departments of Education and Health, and the Surveillance Division of the National Department of Health in her work on the Stop

Rheumatic Heart Disease ASAP Programme. Fostered relations with the Non-Communicable Diseases Desk of the World Health Organization – Africa Region and the Social Cluster of the African Union Commission, with presentations at both WHO-Afro in Congo and WHO Headquarters in Geneva. Included in the technical scientific experts meeting on CVD and NCDs in WHO Geneva, October 2015. These activities promote the mission of the faculty and university, and contribute to growing the faculty's reputation locally, nationally, and internationally.

- Provides regular input to the national department of education and health and addressed the Department of Health on both rheumatic and congenital heart disease. She recently co-authored a paper reviewing the current levels of cardiovascular practitioners, which was submitted to the Minister of Health and published.
- Presentations to the WHO-Afro group on incorporation of the RHD policy into the WHO-Pen package in Congo-Brazzaville. This was followed by a meeting of NCD experts at WHO HQ in Geneva, presented RHD and CHD in a high-level meeting of technical experts and presented at a side meeting on children and adolescents at the World Health Assembly in Geneva in May 2015, as well as at a women's health meeting for the United Nations Health Assembly in New York in September 2015. Played a critical role in the WHO resolution against RHD in 2018, attended the United Nations, WHO Geneva and World Health Assembly in 2016, 2017 and 2018.
- *Rheumatic heart disease in Africa: The Mosi-o-Tunya call to action*. This paper was the result of a workshop on ARF and RHD organised by Prof Zühlke (with colleagues) under the auspices of the Pan-African Society of Cardiology (PASCAR). It resulted from the early findings of the study. She coordinated and was first author for, which provided the groundswell of data to lead to a call for action against rheumatic heart disease. As a key workshop participant, this represents a substantial contribution to a momentous technical paper with profound implications.
- *Seven key actions to eradicate rheumatic heart disease in Africa: The Addis Ababa communiqué*. Following the Mosi-o-Tunya declaration in 2014, another meeting followed in 2015 to solidify the initial progress and lay down concrete action points delineated in this publication. This led to the Addis Ababa communiqué and African Union declaration – a landmark health resolution signed by all heads of state to eradicate rheumatic heart disease in Africa. She was chosen to represent the PASCAR delegates at the African Union at the time of this historic resolution.

7.4 Public services and/or systems development

- As previous co-director of Reach, and now president, she has been instrumental in developing a needs assessment tool for the comprehensive situational analysis of potential RHD interventions. This tool explores the critical role of community-appropriate research, consults broad stakeholders prior to undertaking research and strongly advocates for consulting impact assessments, monitoring and evaluations post-intervention.
- As a key member of the ASAP continental programme for ending rheumatic heart disease, she has been involved in systems research in several countries, primarily in Zambia (multiple papers on task-shifting, health systems strengthening, and policy and programmatic development), Namibia (monitoring and evaluation) Ethiopia (monitoring and evaluation), as well as research systems teaching and training in Ethiopia.
- As part of the RHD Action team, she has compiled several reports on Benzathine Penicillin, Global Policy and Progress around RHD and tools for implementation of interventions – all have been widely distributed and disseminated in the RHD community.

7.5 Public information and discourse

- Sustained involvement over eight years in the congenital cardiovascular community with significant contributions to raising awareness, promoting debate, and establishing national recognition for concerns and gaps within the discipline. Several publications attest to this ongoing debate and meetings with the National Department of Health, NCD clusters and social and educational cluster. She has also presented findings of her research to local, regional, and national departments of health.
- Presented to local funders (Discovery, Mediclinic) regarding congenital and rheumatic heart disease with significant implications for funding of pulse-oximetry screening in private institutions.
- A particular strength has been her involvement with Rheumatic Fever Week, Heart Month and Day, and Congenital Heart Disease Awareness Week with multiple advocacy and awareness campaigns,

public media campaigns and debate within local and civil society particularly among patients and parents.

- Planned, coordinated, and leveraged funding for the first patient conference day in September 2016, and the qualitative research meeting combined with that meeting to raise awareness of and empower people living with and affected by rheumatic heart disease.
- Track leader for the health systems track at the World Congress of Cardiology in 2013, which featured for the first time two Ministers of Health in one session, Minister of Health, Aaron Motsoaledi and by video Minister of Health of Rwanda, Dr Agnes Binagwaho, debating the public understanding and impact of diseases of poverty in our context.

7.6 Professional/National/International committees/Boards

- Member of the Childhood Hypertension Consortium of South Africa (CHCSA) 2021
- Honorary Chair: University of Manchester awarded 2021
- Member of the Women as One Awards Committee 2021-2022
- Board member of the World Heart Federation 2021-2022
- Board member of the Non-Communicable Disease Alliance (NCDA) 2021-2022
- HPCSA paediatricians' independent practice, sub-specialist in paediatric cardiology
- GMC Full registration
- German Medical Council (Arztammer) full registration
- Commissioner on the Lancet Commission for Cardiovascular Disease in Women
- Board member of the Heart Valve Society
- Past-president of the Paediatric Cardiac Society of South Africa 2012–2016
- Immediate past-president of the South African Heart Association 2016–2018
- International advisory committee of Global ARCH
- Medical advisory committee of Children's Heart Link (CHL)
- Board member of the Hatter Institute of Cardiovascular Research of Africa
- Board member of the Heart and Stroke Foundation 2009–2014
- Scientific and technical advisory board member of the Heart and Stroke Foundation
- Steering committee member of the Emerging Leaders in Global Cardiovascular Prevention and Control Presidential Initiative – World Heart Federation
- Co-chair of the Pan African Society of Cardiology (PASCAR) RHD Task Force
- Chairperson of the PASCAR Paediatric and Congenital Cardiology Task Force (PANPACH)
- President of Reach (Rheumatic Heart Disease Evidence, Advocacy Communication and Hope)
- Co-founder of RHD Action
- Co-author of the Mosi-o-Tunya declaration - A call to action for rheumatic fever and rheumatic heart disease
- Associate of the Chronic Disease Initiative of Africa (CDIA)
- Executive member of the Western Cape branch of the South African Heart Association
- Director of the 2013 World Congress Company
- Member of the organising and scientific committee for the 6th World Congress of Paediatric Cardiology and Cardiac Surgery 2013
- Member of the organising and scientific committee for the World Congress of Cardiology and Cardiovascular Health 2016
- Member of the organising and scientific committee for the 7th World Congress of Paediatric Cardiology and Cardiac Surgery 2017
- Associate of the Institute of Infectious Disease and Molecular Science (IDM)
- Honorary Research Fellow of Telethon Kids Institute
- Board member of SA Heart
- Executive committee member of the Global Group A Streptococcal Vaccine Consortium (hosted by WHO)

- American Heart Association Rheumatic Fever, Endocarditis, and Kawasaki Disease Committee of the Council on Cardiovascular Disease in the Young
- Honorary Chair at the University of Manchester

7.7 Joint academic clinical practice: Describe contribution to enhancing clinical academic practice across UCT service platform

Clinical achievements:

- I occupy a unique clinical post across the disciplines of paediatric and adult cardiology. I **started a Grown-Up Congenital Heart Disease (GUCH) clinic in 2014**, which has now been incorporated into the adult cardiology clinic. Together with Dr Blanche Cupido, an adult cardiologist, I now consult in one of only two GUCH clinics in the country.
- I have **developed a transitional clinic** within Red Cross War Memorial Children's Hospital, which for the first time evaluates all children from age 12 years with comprehensive preparation for transition and transfer to adult services. In two years, we have evaluated over 300 adolescents and decreased the lost to follow-up percentage to less than 20% (previously over 60%).
- I am the paediatric cardiologist in the multidisciplinary **Combined Cardiac Obstetric Clinic (CCOC) service, which is unique in the African** setting and has demonstrated improved outcomes for women with cardiac disease when managed in a multidisciplinary clinic.
- I have a special interest in outcomes-based medicine and teach on network meta-analysis, individual patient meta-analysis, and new cutting-edge review methods for the evidence-based medicine course. This includes close collaboration with our surgeons to ensure evidence-based interventions to improve surgical outcomes.
- The bespoke PROTEA research database developed through my research, has **been incorporated into all aspects of clinical work within the department and has elevated the Division of Paediatric Cardiology to a new level**. This is now being offered to Departments of Paediatric Cardiology across the country. Interdepartmental Paediatric Cardiothoracic Surgery/Cardiology Waiting List and Congenital Heart Disease Multi-Centre Research Database
- Definitive surgical intervention at the Red Cross War Memorial Children's Hospital is associated with survival rates comparable to international programmes. Managing the complexity of a surgical list with far greater demand than available surgical slots has, however, long proven to be a complex balancing act, at least until now. Previously, ensuring that surgery, as well as the associated pre-surgical investigations, occurred in a synchronous fashion without delay, represented an especially challenging task due to the confounding issues of distance of the patient from the hospital, missing or changing contact information, and guaranteeing balanced care for both staged procedures for complex pathology, as well as single-step corrective surgical procedures for simpler cases. **It was therefore clear, after years of difficulty with a variety of paper-based systems, that an advanced, largely automated, booking system with larger scope was urgently needed.**
- Following discussion between myself, A/Professor John Lawrenson, Head of the Division of Paediatric Cardiology, Dr Paul Human, Professor Peter Zilla and paediatric surgeons from the Chris Barnard Division of Cardiothoracic Surgery, Dr Human agreed to develop **a system which would provide a robust and secure solution to the multidisciplinary nature of the interdepartmental interaction which encompasses data capture of all cardiological investigations, surgical decisions, and to facilitate the essential waiting list management component**. Financial resources for the project were obtained from a research collaboration with the University of Manchester (the majority of the funds, through our PROTEA study research grant), as well as the Red Cross Hospital Children's Trust. This intelligent system, also capable of generating investigation reports, **is now in full use and completely integrated into clinical practice in the department**. It allows for the funnelling of data from day-to-day work directly into a research database. This research component is used by the team at the Children's Heart Disease Research Unit to warehouse the data for the PROTEA (Partnerships in Congenital Heart Disease in Africa) study in accordance with the University of Manchester collaboration agreement. This database was developed to include additional "Adult Congenital", "Obstetrics" and "Genotyping" modules. A version of the system is currently being readied as an open-access product for distribution to other African countries, commencing with Namibia. This provides a unique opportunity to take learning into Africa and provide a method of organising cardiac surgical care integrated with a unique and robust research database.

7.8 Transformation statement

- **Teaching and learning**

I was the first and still am the only (female) consultant of colour in the department of cardiology, this is typical of departments of cardiology in not only South Africa but also the world, as cardiology is traditionally a male-dominated environment. Several high-impact papers have been published on this phenomenon, including ones which I co-authored. I have thus undertaken to mentor, support and encourage women, particularly of colour or from without the traditional structures (supernumeraries, soft funded and visiting) within this discipline. I actively support and mentor young women who are interested in research and medicine and have supervised several successful special study modules (SSMs). My SSM students have continued to thrive – one student has been accepted for paediatric training, a second has completed a DCH and another is undertaking her MPH. The most recent students mentored in my unit were able to complete an internship, co-author two papers and present two posters at an international congress, while another student completed an internship and was then, with my recommendation, accepted at a research fellowship in the United States. My most recent student has completed her MPH, has published the first of two papers, registered for her PhD and is doing a research sabbatical in Manchester, UK.

- **Research**

Children are traditionally overlooked in terms of global health, cardiovascular disease and the calculation of DALYS and QALYS. Thus, focusing on diseases of poverty and the under-recognised children, adolescents and people living within poor and marginalised societies is transforming the traditional neglect of children's priorities in research. I have dedicated my academic and clinical career to be an advocate for children with heart disease and have worked tirelessly to increase visibility for these marginalised communities. I have done this on a local level, by community and patient interaction, at a regional level in my work with the ASAP programme, and my representation on national and regional fora and campaigning for effective interventions and human and health resources. My work within structures, such as the AU, WHO and WHF, and my positions within the cardiology societies of the countries and beyond strengthen my opportunities to transform the research landscape for children with heart disease. My research has resulted in policy shifts and information which has helped to set new priorities for rheumatic and congenital heart disease.

The process of developing a research career can be a difficult one in a clinical environment – I have approached this with strength, vigour and determination. I have encouraged many others on their paths to a clinical scientist position and will continue to do so going forth. I have also provided some insight to alternative funding, flexible working structures and working across disciplines (medicine and paediatrics) and interdisciplinary/interdepartmental research. Finally, my research has empowered and given a voice to people traditionally silent (children and poor communities) and I believe that this has led to elevating and highlighting the patient's lived experience.

- **University leadership and management/administration**

I am a member of the transformation action group (TAG) within my department and feel strongly about the need to strengthen a facilitatory and inclusive environment, which should be on multiple facets. I have also shared my own story on a larger stage using my journey of negotiating a male-dominated working environment in the Voices series in the department, as a very personal contribution to the transformation process.

I have played a critical role in the transformation of a previously two-dimensional division of paediatric cardiology (service and training with minimal to no research outputs), thus providing leadership and mentorship for junior members of the team, and an alternative role model, in keeping with the University of Cape Town's transformative goals to encourage and support those struggling with conflicting roles. Testament to this has been requests to present this talk at other fora and to develop a women's support network for female cardiovascular physicians. I have also worked in a foreign language, without traditional support structures, allowing me the possibility to reflect on and be open to other experiences, which I have been able to share and explore similarities with other younger staff.

- **Social responsiveness**

I have actively engaged with communities in Vanguard, Langa, Delft and Netreg as part of research and have fostered good relationships with patients, families, and communities. Research staff are drawn from these communities and speak local languages in order to integrate more effectively into community engagement. Part of the role as management staff has been to support and develop all cadres of research and administrative staff. A strong part of my work has been as an advocate for rheumatic heart disease and congenital heart disease, and I have developed a strong voice and presence in this regard using multimedia opportunities, outside of the traditional medical structures. My major contribution has been to patient advocacy, hosting and developing the patients' wellness and interactive days. I see my role as being accountable to our communities, and conducting community/socially accountable and relevant research, while ensuring this in clinical practice, teaching and training.

8 Honours, awards and prizes

Year	Honours, awards and prizes
2022	Metrodora Awards 2022 winner for the category: Public Health Leader in Science and Medicine
2021	Cornerstone Institute Laureate Award for Scientific Inquiry and the Advancement of Knowledge in Service of Others
2020	NRF Special Awards 2020 winner for the category: Public Engagement with Research
2020	22 nd National Science and Technology Forum (NSTF)-South32 Awards finalist for the category: TW Kambule-NSTF Award: Researcher
2019	ESC Grant to attend Women Transforming Leadership Course at Oxford, UK
2017	Best Paper in Early Career Category - Faculty of Health Sciences, UCT (R20 000)
2016	Golden Key Academic Award - awarded to top 15% of UCT students
2016	ESC Award to London School of Economics
2015	Nature Reviews Best Investigator Award - Pan African Society of Cardiology Congress (\$500)
2015	Best Publication Award - Paediatric Cardiac Society of South Africa (R10 000)
2015	Scientific White Travel Award
2011	Best Scientific Poster - South African Heart Association Congress (R5000)
2009	Louis Vogelpoel Travel Scholarship - South African Heart Association
2007	Best Scientific Presentation- South African Heart Association, Sun City

9 International collaborations

9.1 Significant international collaborations within the RHD community

- Group lead of the [NHLBI Tertiary Prevention Working Group](#) and panellist on the 2021 Eradication of Rheumatic Heart Disease: Assessing Research Challenges and Opportunities Workshop Series.
- Co-Chair of the [END-RHD ASAP task force of Pan African Society of Cardiology](#) based on the significant contribution of the REMEDY study and the links with 25 continental cardiology units and 14 countries.
- [Define Registry](#) – expert steering committee, together with Australia, New Zealand and United States – investigators are from Zambia, Fiji, Samoa and New Caledonia.
- [World Heart Federation Expert Working Group](#) for the definition of subclinical rheumatic heart disease – 18 international experts led by Professor Jonathan Carapetis and Dr Nigel Wilson.
- [Reach](#) – President from 2018 to present – the initiative is to identify, describe and disseminate solutions for this neglected disease and to reduce burden on vulnerable populations around the world. As a collaborative organisation, we seek to partner with a broad range of stakeholders – including clinicians, other disease communities, academics, funders, governments, industry, and people living with RHD – to achieve our common goals. It represents a collaboration between Prof Jonathan Carapetis and myself and by extension, the Telethon Kids Institute for Child Health. These are manifest in shared publications, editorship, and co-authorship of several important new publications about rheumatic fever and rheumatic heart disease – including an invited review from the *Journal of the American College and Cardiology (JACC)*, the number one cardiovascular journal.
- [World Heart Federation](#): Steering committee of the emerging leaders in Global Cardiovascular management and prevention.

- Together with Reach and World Heart Federation, one of the key founding members of RHDAction, a global movement to support, empower and engage around rheumatic heart disease and unite the RHD community to end the burden of RHD worldwide.
- Recent Heart Valve Society Research meeting with new links with US and European based valve experts – future research and collaborations planned, now board member for HVS.
- RHDGen – H3 Africa grant – a collaborator and co-investigator as this grant arose from the REMEDY study, eight countries in addition to United Kingdom and Wellcome Trust.
- INVICTUS study – this marks a historic new era for rheumatic heart disease with large scale trial and register. As a national leader I will be liaising directly with sites and with the coordinating centre based at McMaster in Canada.

9.2 Significant international collaborations within the cardiovascular community

- Past-President of the Paediatric Cardiology and Cardiac Surgery Society of South Africa, Immediate Past-President of South African Heart Association and Chairperson of the Paediatric Cardiology Taskforce of the Pan-African Society of Cardiology. Unique position therefore to foster strong links within the paediatric cardiology society in Africa. This is has allowed me to support meetings (invited speaker to CSI Africa, Tanzania, and Ethiopia) – due to conflicting speaker engagements, could not attend but suggested local faculty instead to strengthen links between units.
- Galvanised efforts to encourage supernumerary training in Africa – first Malawian trained in Pretoria, South Africa, as a direct enquiry from Dr Neil Kennedy of Malawi to myself, with my links within the PCSSA resulting in a full training post.
- World Heart Federation World Congress of Cardiology and Cardiovascular Health 2014 – Topic Group Expert including role in scientific programme, reviewing, and choosing abstracts and culminating in congress track leader in 2016 running three tracks – rheumatic heart disease, congenital heart disease and Chagas.
- Associate and Board Member of the Hatter Cardiovascular Research Centre
- Associate of the Chronic Diseases Institute of Africa
- Involved in the planning and settings of aims and objectives for International World Heart Day on 29 September in conjunction with the World Heart Federation.
- Collaborator on the Global Burden of Disease study – involved in congenital heart disease, HIV and rheumatic heart disease as well as maternal mortality.
- As President of the South African Heart Association will be hosting the Global Summit of Cardiovascular Disease in Cape Town in 2017, a premier event to raise awareness and discuss key strategies to prevent and control heart disease in the world.
- New links with adult congenital heart disease, key member of the International Adults with Congenital Heart Disease Research Group with significant collaborators, including joint grant agreements with Sweden, Belgium, and United Kingdom.
- Developing links with congenital heart disease communities all over Africa but also Australia, United Kingdom with new grant applications being proposed.
- Strong links with Children’s Heart Link (member of International Advisory Board), the International Quality Improvement Collaborative and Amrita Institute of Medical Science, Cochin India.
- Strong links with the Telethon Kids Institute with reciprocal grants for visits and exchange programmes being considered and in application.

10 Referees

10.1 International referees

Professor Bernard Keavney

Affiliations: Division of Cardiovascular Sciences Division of Cardiovascular Sciences, University of Manchester, **UK**

Email: bernard.keavney@manchester.ac.uk

Phone: 0044-61 275 0233

Professor Keavney is the British Heart Foundation Professor of Cardiovascular Medicine and a Consultant Cardiologist at Central Manchester University Hospitals NHS Trust. He joined the University of Manchester in April 2013 as Director of the Institute of Cardiovascular Sciences, and from August 2016 served as the Director of the Cardiovascular, Metabolic and Nutritional Science Research Domain in the Faculty of Biology, Medicine and Health.

Professor Keavney was the co-Principal Investigator with Prof Mayosi in the Newton-funded initiative, DGEMBE: Developing Genomic Medicine between Africa and the UK. The partnership between Professors Keavney and Zühlke, has developed since then into a productive, scientific, and collaborative relationship with two major grants, several researcher exchanges and published manuscripts.

Professor Keavney can particularly address my contribution to scholarship and academic achievements as well as my community engagement and responsiveness.

Professor Krishna Kumar

Affiliations: Clinical Professor and Head, Pediatric Cardiology, Amrita Institute of Medical Sciences and Research Centre, Cochin, 682041, Kerala, **India**

Email: kumar_rk@yahoo.com

Phone: +91-4842853570

Dr Krishna Kumar is presently the Clinical Professor and Head of the Department of Paediatric Cardiology at the Amrita Institute of Medical Sciences and Research Center, Cochin. He is also Professor of Research at the Public Health Foundation of India as well as an Advisor to the Centre of Digital Health. His clinical focus is diverse because of the unique requirements of the population he serves. This includes echocardiography, catheter interventions and intensive care. His chief research interests relate to the epidemiology of heart disease in the developing world and developing cost effective clinical strategies for the diagnosis and treatment of paediatric heart disease in developing countries. He has published over 100 indexed original and review articles.

Professor Kumar can speak to my role as a global leader in child health, rheumatic, and congenital heart disease as well as organisational and public health competencies.

Professor Roxana Mehran

Affiliations: Guggenheim Pavilion 1190 Fifth Avenue - 1 South, New York, NY 10029 **USA**

Email: Roxana.Mehran@mountsinai.org

Phone: +1- 212-659-9691

Roxana Mehran is Professor of Medicine and Director of Interventional Cardiovascular Research and Clinical Trials at the Zena and Michael A. Wiener Cardiovascular Institute at Mount Sinai School of Medicine. Professor Mehran serves on the editorial board of multiple peer reviewed journals. She currently serves on the board of trustees of SCAI, as a member of the Program Committee for the American Heart Association Scientific Sessions, as a member of the board of directors for Harboring Hearts, and as Program Chair for the Society of Cardiac Angiography and Interventions (SCAI- WIN (Women in Innovations)) Initiative, as well as being the Chief Scientific Officer of the Clinical Trials Center at the Cardiovascular Research Foundation (NYC). I have worked with Professor Moran over the past two years in the "Women as One" Initiative which she co-leads but also as a co-author in the Lancet Commission which she leads.

Professor Mehran can attest to my vehement advocacy for womxn, for Africa and for my discipline.

10.2 Regional and local referees

Professor Marian Jacobs

Affiliations: Emeritus Professor, Child Health, **South Africa**

Email: marian.jacobs@uct.ac.za

Professor Jacobs is a Public Health Paediatrician, Emeritus Professor of Child Health and previous Dean of the Faculty of Health Sciences. She headed the Department of Paediatrics and Child Health and also served as founding director of the Children's Institute and its predecessor, the Child Health Policy Institute. In addition, she serves on the Council on Health Research for Development (COHRED), the Centre for Health Research in Bangladesh, the Joint Learning Initiative on Human Resources for Health and the Advisory Committee on Health Research for WHO. She also supports research to address new-born infections in Bangladesh and Pakistan, is a member of the WHO Technical Reference Group for Maternal, New-born, Child and Adolescent Health and advises the Gulbenkian Foundation's Global Mental Health Platform.

Professor Jacobs has followed my career since my first days in the Department and can speak with intimate knowledge of my abilities, strengths, and abilities but also the needs of the Department of Child and Adolescent Health.

Professor Valerie Mizrahi

Affiliations: Director Institute of Infectious Disease and Molecular Medicine, University of Cape Town, **South Africa**

Email: Valerie.mizrahi@uct.ac.za

Professor Mizrahi is the Director and Full Member of the Institute of Infectious Disease and Molecular Medicine (IDMM), Director, of the SAMRC/NHLS/UCT Molecular Mycobacteriology Research Unit (MMRU) which constitutes the UCT node of the DST/NRF Centre of Excellence for Biomedical TB Research (CBTBR), Division of Medical Microbiology, Department of Pathology, Faculty of Health Sciences, University of Cape Town and former Senior International Research Scholar at Howard Hughes Medical Institute in USA (until October 2017). She received the L'Oréal-UNESCO Award for Women in Science, the Gold Medal from the South African Society for Biochemistry and Molecular Biology for her contributions to the field, the Department of Science and Technology's Distinguished Woman Scientist Award, named to the Order of Mapungubwe, awarded the Institut de France's Christophe Mérieux Prize for her work in tuberculosis research, and the Platinum Medal of the SAMRC for lifetime contributions to medical research in South Africa.

Professor Mizrahi has been a strong support and mentor over the past three years, has supported my nomination for the Grand Challenges "African Rising star" and can attest to my ability to lead a department and create strategic direction at this time.

Professor Ana-Olga Mocumbi

Affiliations: Professor of Cardiology in the Faculty of Medicine at Eduardo Mondlane University, **Mozambique**

Email: amocumbi@gmail.com

Prof Mocumbi is Associate Professor of Cardiology in the Faculty of Medicine at Eduardo Mondlane University, a Member of the Scientific Council of the High School of Health Sciences in Mozambique, and Head of the Non-Communicable Diseases Division in Mozambique's National Health Institute. Professor Mocumbi has also been appointed Coordinator of the Master's Degree Program at Unilurio University, Mozambique and was Coordinator for the Medical Education Partnership Initiative at University Eduardo Mondlane. Previously, Professor Mocumbi was appointed Deputy Director and Head of Research at the Heart Institute in Maputo, Mozambique and gained substantial management expertise while serving as Government Provincial Manager of Health Resources and Training in a Mozambique Province. Professor Mocumbi's career focuses on non-communicable diseases of the poor and particularly aims at improving care provision and research into cardiovascular disease risk factors and prevalence in Africa.

Professor Mocumbi and I are co-authors, co-investigators and colleagues and will address my role as a global thought leader in child health particularly regarding Rheumatic and Congenital Heart Disease in Africa.