



# Department of Paediatrics and Child Health

### Annual Report for Tygerberg Hospital and Stellenbosch University 2022

Head of Department

Professor Regan Solomons

Report compiled by

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### Executive Summary - 2022

In 2022, services started returning to pre-COVID-19 pandemic levels, and life with masks, visors and strict protocols seemed like the distant past in the clinical and academic arena. The momentum of co-operation on many levels and innovations in clinical service delivery, teaching and research during the pandemic need to be sustained. Post-Covid 19 there has been an expected uptick in both inpatients admissions as well as numbers attending our ambulatory clinics. Our stalwart Executive Head, Prof Mariana Kruger, retired at the end of 2022 after 13 years at the helm. Although a void will be felt in clinical service delivery, teaching, research and leadership both nationally and internationally, she leaves a Department of Paediatrics and Child Health in good shape for the future. In Prof Regan Solomons, the incoming Executive Head, the department is in capable hands to continue the momentum of innovation. Major service pressures in the neonatal services remain, with very high bed occupancy rates for inborn neonates, often exceeding 100%. There was a good pass rate for both under- and postgraduate students. 1 PhD, 3 MPhils and 12 MMeds were awarded to our students in 2022. It has been a very successful year in the CMSA examinations, with the Robert McDonald medal being awarded for the best performance in the FC Paed part II examinations, for the 2nd year running, as well as the Connor Farrell medal being awarded for the best performance in the Certificate of Paediatric Pulmonology examinations.

Professor Regan Solomons



### Part 1

### Resources and Output

### **Human Resources**

Posts (full-tin	<u>ne)</u>	<u>Number</u>	<u>Filled</u>
Executive Head of Department/ Chief Specialist Head of Clinical Department/ Chief Specialist		1	1
		1	1
Head of Clinical Units	Head of Clinical Units		5
Subspecialists		20+1	20+1
Specialists		5+1(5/8)	5+1(5/8)
Senior Registrars		18 (including 15 Supernumeraries)	18 (including 15 Supernumeraries)
*Registrars		46 (including 13 Supernumeraries)	Supernumeraries
Medical Officers		25	24
Posts (sessional - hours	s per week)		
Specialist		7 (82 hours)	7 (82 hours)
Number of beds		271	271
SUMMARY OF OUTPUT	2022	2021	2020
Neonatology			
Inpatients	4001	Not calculated	Not calculated
		separately Not calculated	separately Not calculated
Outpatients	1817	separately	separately
Subspecialist Paediatrics			
Inpatients	5482	5373 (Previously combined with neonatology)	5075 (Previously combined with neonatology)
Outpatients	9676	11335 (+9.7%)	10329 (-24%)
General Paediatrics			
Inpatients	6067	8088 (Previously combined with neonatology)	7244 (Previously combined with neonatology)
Outpatients	1642	7856 (-7%)	8509 (-30%)

### Output NEONATOLOGY

### **Total patient admissions 2022 (Clinicom data)**

*	A9 NICU	G1	G2	J3	G8	Total
	462	716	868	892	1063	4001

### **Bed Occupancy Rate 2022(Clinicom data)**

*A9 NICU	G1	G2	J3	G8	Total Average
84%	94%	84%	115%	90%	93%

<sup>\*</sup>A9 NICU includes High-care beds, since Clinicom cannot separate data. #BOR low due to nursing staff shortages.

### Neonatology

Staff: Dr G Kali, Prof A Bekker, Drs S Holgate, JCF du Preez, H Hassan, L Van Wyk, L Lloyd, M Satardien; 5 Senior Registrars (4 supernumerary) – Dr I Abrahams, Dr SM Abushkiwa, Dr TR Jones, Dr Dr T Mogotsi, Dr Y Mohamed - 6 Registrars; 7 Medical Officers

### **A9 Neonatal Intensive Care Unit**

Staff: 1 Consultant (on rotation), 2 Registrars, 1 Medical Officer

Beds <i>n=8</i>	2022	2021	2020
Admissions	462	469	457
Average NICU Stay in Days	8	8	8
Average Bed Occupancy %	84%	78%	77%
% Growth	-1.4%	2.6%	-10%
Deaths	109	91	88

### Ward G1: Neonatal Unit - Babies born outside TBH

Staff: 2 Consultants (on rotation), 2 Registrars, 1 Medical Officer, 1 Intern

Beds n=30	2022	2021	2020
Admissions	716	697	682
Average Ward Stay in Days	15	14	14
Average Bed Occupancy %	94%	88%	86%
% Growth	2.7%	2.1%	-13%
Deaths	29	26	20

#### Ward G2 Neonatal Unit – Babies born in TBH

Staff: 2 Consultants (on rotation), 1 Registrar, 3 Medical Officers, 1 Intern (if available)

Beds <i>n=27</i>	2022	2021	2020
Admissions	868	1001	1039
Average Ward Stay in Days	12	10	10
Average Bed Occupancy	106%	105%	93%
% Growth	-13.2%	-3.6%	-33%
Deaths	38	37	40

### Ward J3 Neonatal Unit - Babies born in TBH

Staff: 1 Consultant (on rotation), 1 Registrar, 1 Medical Officer, 1 Intern

Beds <i>n=25</i>	2022	2021	2020
Admissions	892	873	966
Average Ward Stay in Days	12	12	10
Average Bed Occupancy	115%	113%	91%
% Growth	2.1%	-9.6%	2.6%
Deaths	27	26	26

### Ward G8 Low Care Neonates & Kangaroo-mother Care – Step-down Facility Staff: 1 Consultant (on rotation), 1 Medical Officer, 2 Interns

Beds <i>n=30</i>	2022	2021	2020
Admissions	1063	1100	1099
Average Ward Stay in Days	9	9	9
Average bed occupancy %	90%	90%	90%
% Growth	-3.3%	0.09%	-15%
Deaths	5	0	2

### **Neonatal bed occupancy rates:**

### Postnatal wards (J5, J2, C2A)

Staff: 1 intern from neonatal pool

6500 clinical contacts/year (based on estimated 25 patients/day on weekdays)

### Attendance at Caesarean sections (C/S) and complicated deliveries

4062 C/S deliveries

Staff:

1st call - 1 intern from neonatal pool

2<sup>nd</sup> call - 1 medical officer or registrar from neonatal pool

### SUBSPECIALIST PAEDIATRICS

### Total patient admissions 2022 (Clinicom data)

A9 PICU*	A9 High Care	Trachea Unit	G3	G9	G10	Total
678		51	1137	1431	1007	5482

<sup>\*</sup>A9 PICU includes High-care beds, since Clinicom cannot separate data.

### **Bed Occupancy Rate 2022(Clinicom data)**

A9	Α9	Trachea	G3	G9	G10	Total	
PICU*	High Care	Unit			010	Average	
91%		58%	80%	74%	74%	79%	

<sup>\*</sup>A9 PICU includes High-care beds, since Clinicom cannot separate data. #BOR low due to nursing staff shortages.

#### HIGHLY SPECIALISED PAEDIATRICS

### A9 Paediatric Intensive Care Unit

Staff: Prof P Goussard, Drs N Parker, Dr E Du Plooy, 3 Registrars, 1 Medical Officer

Beds <i>n=10</i>	2022	2021	2020
Admissions	678	630	574
Average Hospital Stay in Days	6	5	5
Average Bed Occupancy %	91%	81%	67%
% Growth	7.6%	9.7%	-11.5%
Deaths	71	66	88

### A9 Paediatric High Care Unit (Combined with PICU during Covid period) Staff as mentioned above

Beds <i>n=4</i>	2022*	2021*	2020*
Admissions	/	/	/
Average Hospital Stay in Days	/	/	/
Average Bed Occupancy %	/	/	/
Growth %	/	/	/
Deaths	/	/	/

<sup>\*</sup> Due to nursing staff shortages

### **A9 Tracheostomy Unit**

### Staff as mentioned above

Beds n=6	2022	2021	2020
Admissions	51	37	52
Average Bed Occupancy %	58%	56%	26%
Growth %	37%	-28%	-18%
Deaths	0	0	0
Decannulation			

### Ward G9 Paediatric Pulmonology

Staff: Prof P Goussard, 2 Senior Registrars (Drs A Gie, N Geddara), 1 Pulmonology Specialist Sessionist, Dr D Rhode (8 hrs/week), 2 Registrars, Shared MO in G9

Pulmonology Beds n=10	2022	2021	2020
Admissions Pulmonology	1693	859	628
Average Hospital Stay in Days	5	6	5
Average Bed Occupancy %	41%	48%	57%
% Growth	97%	36.7%	-45.9%
Deaths	3	7	1

### **Ward G9 Neurology**

Staff: Prof R van Toorn, Prof R Solomons, 1 Senior Registrar (Dr M van Niekerk), 1 Supernumerary Senior Registrar (Dr H Mohammed), 2 Registrars

Beds <i>n=10</i>	2022	2021	2020
Admissions	329*	370	306
Average Hospital Stay in Days	9	6.34	6
Referral other wards	960	720	700
Average Bed Occupancy %	*%	*%	46%
% Growth	-11%	21%	-35%
Deaths	0	6	5

### Other Activities

- Paediatric & neonatal EEGs from TBH reported by the 2 consultants: 600
- 6 Outreach clinics to Paarl hospital (patients seen): n=120
- 5 Outreach clinics Worcester hospital (patients seen): n= 100
- 2 Clinics at Alta du Toit special school (patients seen): n=60
- \*Admission, avg hospital stay & avg bed occupancy incorrect on Clinicom

### Ward G9 Paediatric Endocrinology

Staff: Dr M Grantham, Prof E Zollner (25 hrs/week), registrar, & shared intern for G9

Beds n=5	2022	2021	2020
Patients admitted		115 Diabetics 64 Endocrinology	109 Diabetics 93* Endocrinology
Admission Subtotal	113*	179	202
Admissions other wards, day cases		2	1
Admissions total		181	203
Ward reviews		82	59
Average Hospital Stay in Days	9*	8	7
Average Bed Occupancy %	%	75% (not counting outliers)	74% (not counting outliers)
% Growth	-37%*	-11%	-14%
Deaths	1	0	0

<sup>\*</sup> Data incomplete - several different clerks were used

### Ward G10 Gastroenterology

Staff: Dr P Rose, Prof ED Nel (sessional), Dr L Ndhlovu (part time), 2 Senior Registrars (Dr E Elkhathiali, Dr Y Monteiro), 1 Registrar, and 1 Intern.

Beds n=9	2022	2021	2020
Admissions	239	173	23
Average Hospital Stay in Days	8*	3	3.57
Average Bed Occupancy %	74%*	**%	**%
% Growth	+38%	**%	**%
Deaths	5	6	0
Liver biopsies	12	-	-
Gastroscopies - Child - Adult	616 64 552	-	-
Colonoscopies - Child - Adult	99 9 90	-	-
Ward attenders	98	-	-

Clinicom data combined for gastroenterology, cardiology and infectious diseases

<sup>\* \*\*</sup> BOR and growth could not be calculated during to Covid

### **Ward G10 Infectious Diseases Unit**

Staff: Prof H Rabie, Dr H Finlayson, Dr J Lishman, 2 Senior Registrars (Dr RC Krause, Dr A Asante), 2 Registrars, 3 Medical Officers (HIV clinic, 8th floor)

Beds n=14	2022	2021	2020
Admissions	1007	943	959
Average Hospital Stay in Days	8	7	5
Average Bed Occupancy %	74%	60%	45%
% Growth	6.7%	-1.6%	76%
Deaths	13		

### **G10 Cardiology**

Cross Platform Staff:

Tygerberg Hospital (TBH): Prof J Lawrenson, Dr B Fourie, 2 Registrars Red Cross War Memorial Children's Hospital (RXH): 2 Consultants, 2 Senior Registrar

Beds <i>n=10 (G3=5, G10=5)</i>	2022	2021	2020
Admissions	139	106	107
Average Hospital Stay in Days	*	*	*
Average Bed Occupancy %	*	*	*
Inpatient Echocardiography	1642	1420	1187
Inpatient Consultations	1706	1485	1246
Growth numbers	222	239	-134
Growth %	15%	11%	-10%
Deaths	3	4	3

<sup>\*</sup> Clinicom data combined for gastroenterology, cardiology and infectious diseases

Cardiology catheterization procedures: 188 (RXH) Surgeries: 22 at Tygerberg, at 260 Red Cross Hospital

Worcester Clinic: 163

Paarl Clinic: 116

### Ward G3 Oncology & Haematology

Staff: Prof M Kruger, Dr A van Zyl, Dr L Schoonraad, Dr R Uys, 1 Senior Registrar (Dr D Alajeal), 2 Registrars

Beds <i>n=9</i>	2022	2021	2020
New patients Haematology	51	46	45
New patients Oncology	71	61	64
New patients Total	122	107	109
Admissions	1137	1304	1011
% Growth	-12%	29%	-4%
Average Hospital Stay in Days	5	3	3
Average Bed Occupancy %	121%	99%	102%
Total deaths in G3	8	8	9
Expected palliative	8	6	8
Sepsis/other	0	2	1
Referrals	Haematology 75	Haematology 71	Haematology 72
G3 Day Patients (Haem/Onco)=	1971	1549	1523
Ward attenders	71	Haematology:5 Oncology : 354 Total: 359	
Chemotherapy administrations	2017	2000	2001
Bone marrow aspirations and biopsies	114	106	114
Intra-thecal chemotherapy procedures	223	256	316

<sup>\*</sup>G3 Ward data April 2022 to July 2022 no permanent ward clerk in G3 that influenced statistics.

### Ward G3 Rheumatology & Immunology

Staff: Dr D Abraham (23 hrs per week), Supernumerary senior registrar (Dr N Yunis), Registrar Shared with G3, Shared Medical Officer for G3

Beds <i>n=4</i>	2022	2021	2020
Admissions (long stay)	72	110	103
Rheuma&Immunology Ward attenders	82	87	101
Outliers/email/phone consultations/other wards	Rheuma: 120 Immunology: 53	Rheuma: 122 Immunology: 78	Rheuma: 62 Immunology: 82
Average Hospital Stay in days	5	5	1
Average bed occupancy %	7%	/	1
% Growth	5.2%	6.7%	-25%
Deaths	2	0	0

### Ward G3 Nephrology

Staff: Dr CJ du Buisson, Dr JL Shires – part-time, Registrar and intern shared with haematology & Immunology

Beds <i>n=5</i>	2022	2021	2020
Admissions	148	131	113
Average Hospital Stay in days	Not calculated	7	6
Average bed occupancy %	Not calculated	Not calculated	30%
% Growth	12.9%	15%	-25%
Deaths	0	1(expected)	0
Renal Biopsies*	14	16	15
Acute Dialysis**	14	8	7
Renal patients outside of G3***	93	132(+37%)	96(-23%)
Referrals****	216	298	267

<sup>\*</sup>Done in C4B Theatre under general anaesthesia, 1 renal biopsy was performed in PICU

<sup>\*\*</sup>All done in PICU and NICU. We received 15 referrals and dialysed only 8 patients. 7 who did not receive dialysis, did well on conservative management.

<sup>\*\*\*</sup>Patients were admitted in other wards where we managed them. 12 in G10 (infective on admission/also COVID), 42 in G7(complicated nephritis, 13 patients could not be accommodated in G3 due to space), 4 in G4(underlying obstructive uropathy with sepsis), 74 patients in neonatal platform (diagnosed with renal failure with abnormalities antenatally)

<sup>\*\*\*\*</sup>These are patients on which only advice needed in the acute phase, not continuous care and referred to outpatient service for further treatment.

### **OUTPATIENT COMPLEX**

### **Subspecialist Clinics**

Clinics	2022	2021	2020
Haematology	380	345	229
Immunology	157	406	143
Oncology G3 OPD patients seen at C3A (lockdown)	446	338	329 486
Pulmonology	949	828	738
Gastroenterology	488	403	423
High-risk Babies	1697	1490	1295
Neurology & Developmental paediatrics	1947	1707	1505
Allergy	434	320	288
Premature Follow-up	120	93	64
Nephrology*	1228	1266	1143
Cardiology	1052	888	907
Diabetic	713	644	502
Endocrinology	622	592	369
Rheumatology	385	434	306
Immunology	179	234	202
Infectious diseases TB HIV	339 (C3A)	280 (C3A)	417 (C3A)
Genetics	373	401	344
Pharmacy prescriptions	269	590	1045
Total	11493	11335	10533

<sup>\*</sup>Centre for Referral for Congenital Anomalies of the Kidney and Urinary Tract.

<sup>\*\*</sup>Patients seen in G Ground due to limited number to be seen in C3A

#### GENERAL SPECIALIST SERVICES

### **Total Patient Admissions 2022 (Clinicom data)**

<b>GG Short Stay</b>	G7	Total
4672	1395	6067

### **Bed Occupancy Rate 2022 (Clinicom data)**

GG Short Stay	G7	Total Average
64%	84%	74%

### **Short-stay G Ground: <48-hour Admissions**

Staff:Dr EJ Smit, A Redfern, 2 Registrars, (1 Emergency Medicine Registrar), 2 Medical Officers, 2 Interns

Beds n=24	2022	2021	2020
Admissions	4672	3941	3208
Average Hospital Stay in Days	1	1	1
Average Bed Occupancy %	64%	52%	35%
% Growth	18.5%	22.8%	-32%
Average Admissions per day			8.7
Deaths	8	15	14

### General Paediatrics: Emergency attendance in GG

EC attendances	2022	2021	2020
Daytime attendances (8am-4pm)	4064	3285	3330
After hours attendances (4pm-8 am)	4321	3384	2833
Daily average seen	23	18	17
Daily average seen after hours (4pm-8am)	12	9	8
EC attendance after hours %	51%	50%	46%
Total EC attendances	8385	6669	6163
Increase	26%	8%	-50%

#### Comments

Although there was a small increase year on year from 2020 to 2021 in terms of attendances to the emergency department, total numbers remain much lower compared to previous years. This may be due to the continued effect of measures to prevent transmission of COVID-19, and consequent reduced incidence of acute respiratory illnesses. However, this trend needs to be watched, and additional factors may also need to be considered.

#### General Paediatric OPD

	2022	2021	2020
General Paeds OPD	New: 170 Follow up: 1223	New: 88 Follow up: 902	New: 137 Follow up: 787
Dr Redfern NDC	New: 31 Follow-up: 162	New: 17 Follow up: 145	New: 17 Follow up: 85
Prof Schaaf TB	New: 18 Follow-up: 25	New: 6 Follow up: 16	78
DTTC study patients	New: 23 Follow-up: 201	New: 42 Follow up: 239	133
G7 follow ups	13	Follow up: 13	22
Allergy* (largely C3A OPD service)	434	320	288
Palliative Care**	36		
Total OPD seen (Excluding DTTC)	1642	1187	1127
% Growth	38%	5%	-36%

<sup>\*</sup>Doctors attached to other services, but responsible for allergy clinics: Drs K Browde (6 hrs per week), Dr A da Costa, Dr K Keyser

#### Ward G7 General Paediatrics

Staff: Prof A Dramowski, Dr L Frigati, Dr A da Costa, 1 Registrar, 2 Medical Officers, 2 Interns

Beds <i>n=25</i>	2022	2021	2020
Admissions	1395	1173	932
Admissions to HCU	614	404	180
Average Hospital Stay in Days	6	6	6
Average Bed occupancy	84%	72%	48%
Increase in ward admissions	19%	26%	-7.2%
Increase in high care need	56%	124%	53%
Deaths	15	7**	6

<sup>\*</sup>Clinicom data

### Comments:

The trend of increasing general paediatric admissions continued. G7 patient admission volumes in 2022 were 39% higher compared to 2019 (pre-Covid). The demand for G7 high care beds increased by 62% compared to 2019 (380 vs 614), with demand peaking from April to June 2022. In every month of 2022, high care bed demand outstripped availability of the 2 approved high care beds.

<sup>\*\*</sup>Doctors attached to other services, but responsible for palliative care referrals: Dr A da Costa, Dr Christel du Buison, Dr A Sullivan

<sup>\*\* 2</sup> cardiology patients (in G7 during Covid lockdown)

### 2022 Morbidity & Mortality

### PPIP data from PPIP database 2022

Total inborn births in TCH (TBH): = 8473 (Total live births = 8074) (Stillbirths = 399)

### Inborn mortality rates at TCH

Perinatal Mortality Rate (PNMR) (≥500g) = 57.8/1000

Perinatal Mortality Rate (PNMR) (≥1000g) = 30.8/1000

Early Neonatal Death Rate (ENNDR) (≥500g) = 11.3/1000

Early Neonatal Death Rate (ENNDR) (≥1000g) = 6.0/1000

Late Neonatal Death Rate (LNNDR) (≥500g) = 3.3/1000

Late Neonatal Death Rate (LNNDR) (≥1000g) = 2.0/1000

### Inborn Survival Rate for babies born alive at TCH

Survival Rate (≥500-999) = 77.9%

Survival Rate (≥500g) = 98.5%

Survival Rate (≥1000g) = 99.2%

### Inborn mortality of babies born alive per birth weight category

Total inborn neonatal deaths on PPIP = 118 (monthly data used for calculations, not detail data as more accurate)

Birth Weight	% Mortality 2022	% Mortality 2021	% Mortality 2020
< 1000g	22.0%	17.6%	24.5
1000 to 1499g	5.0%	2.8%	4.9
1500 to 1999g	1.2%	0.5%	2.2
2000 to 2499g	0.7%	0.6%	0.4
≥2500g	0.3%	0.1%	0.2

Mortality % calculated for each weight category as: number of deaths per number of live births in that weight category.

### % Deaths of babies referred to TCH per weight category

Total neonatal deaths in babies referred to TCH = 53

Birth Weight	% Mortality 2022 (n = 48)	% Mortality 2021 (n = 48)	% Mortality 2020 (n= 45)
<1000g	3 (5.6%)	3 (6.2%)	4 (8.8%)
1000 to 1499g	15 (28%)	14 (29.1%)	12 (26.7%)
1500 to 1999g	4 (7.5%)	5 (10.4%)	8 (17.8)
2000 to 2499	7 (13.2%)	5 (10.4%)	2 (4.4%)
≥2500g	24 (45.2%)	21 (43.7%)	19 (42.2%)
Wt not recorded	0	0	0

- · % calculated as the number of referred (outborn) deaths in each weight category out of all the referred (outborn) neonatal deaths (all weight categories).
- The number of babies referred is not known only the number of deaths who were referred to TBH.

## Outborn babies mortality (total numbers) according to referral area of origin

Geographic Service Area	2022 (n=53)	2021 (n=48)	2020 (n=45)
Metro East (excluding Helderberg with Macassar and Khayelitsha)	19	19	14
Winelands (Paarl area)	16	8	11
Overberg (Worcester drainage area)	10	13	10
Helderberg (including Macassar)	8	6	6
Khayelitsha	0	2	2
Unknown	0	0	2

Geographic area calculated as place of birth not as final facility that referred to Tygerberg.

Paarl	10	Winelands
Piketberg	1	Winelands
Karl Bremer	9	Metro East
Helderberg	7	Helderberg, not included in Metro East
Worcester	6	Overberg
Caledon	1	Overberg
Macassar	1	Included under Helderberg, no Metro East
Bishop Lavis	0	Metro East
Delft	1	Metro East
Clanwilliam	0	Winelands
Robertson	1	Overberg
Khayelitsha	1	Khayelitsha, not included in Metro East
Ceres	1	Overberg
Eerste River	1	Metro East
Kraaifontein	6	Metro East
Citrusdal	1	Winelands
Elsies River	2	Metro East
Hermanus	1	Overberg
Stellenbosch	2	Winelands
Vredendal	2	Winelands

### CHPIP MORTALITY for all sub-specialist paediatric wards (2022)

**Table 1**: All deaths per ward and age as on Clinicom excluding children>29 days of age dying in the neonatal deaths

Ward	Total	0-28 days	29 days -11months	12 -59 months	>5-years
PICU	70	8	40	14	8
GG	9	0	5	4	0
G3	6	0	3	1	2
G10	11	0	6	3	2
G7	17	3	9	2	3
G9	6	0	2	3	1
Total	119	11	65	27	16

Median duration of stay: 5 days (IQR 2:14)

Table 2: Audited deaths per age and firm as per Child PIP

Ward	0-28 days	29 days- 11 months	12-59 Months	> 5 years	Total
A9 PICU	7	34	12	8	61
General Inpatients (G7	1	1	1	1	4
GGround	0	3	0	0	3
Neurology	0	1	0	0	1
Oncology	0	0	0	6	6
Gastroenterology	0	3	2	0	5
Infectious diseases	0	0	1	2	3
Cardiology	0	0	0	1	1
Respiratory	0	1	0	0	1
Nephrology	0	0	0	0	0
Total	8	43	16	18	85
Girls	5	22	5	9	41
Boys	3	21	11	9	44

<sup>\*</sup>Excludes children that died in neonatal service

Table 3: Length of stay as per Child PIP

Length of stay	Number	%
1-3 Days	29	34.1
> 14 Days	11	12.9
< 24 Hours	22	25.8
4-7 Days	9	10.5
8-14 Days	12	14.1
DOA	2	2.3

Table 4:

Main Cause of Death	Number	%
Septicaemia, possible serious bacterial infection	23	27%
Pneumonia, ARI	14	16.4
Heart failure, Pulmonary Oedema	9	10.5
Other diagnosis (specify)	7	8.2
Other Nervous System (specify)	6	7
Acute diarrhoea, hypovolaemic shock	5	5.8
Cirrhosis, Portal Hypertension, Liver Failure, Hepatitis	4	4.7
Tumours	4	4.7
Hospital-acquired infection	3	3.5
III-defined/Unknown cause of mortality	2	2.3
Malaria	1	1.1
Other Circulatory System (specify)	1	1.1
Chronic diarrhoea	1	1.1
Other inflammatory CNS disease (e.g. abscess)	1	1.1
Status epilepticus	1	1.1
Other Poisoning (specify)	1	1.1
Other possible serious infection (specify)	1	1.1
Other Respiratory System (specify)	1	1.1

Table 5:

Weight Category	Number	%
Normal	44	51.7
M-K (Marasmic-Kwashiorkor)	19	22.3
Unknown	11	12.9
Marasmus	8	9.4
UWFA	3	3.5

Table 6: Death by HIV status

HIV status	Number
Negative	61
Exposed	10
Infected	8
Not tested (not indicated)	1
Unknown	5

### Infrastructure Development

### **Highlights**

Opening of the Carte Blanche Making a Difference Trust Tygerberg Hospital Paediatric & Neonatal ICU Facilities on 8 August 2022 by the Western Cape Premier, Mr Alan Winde & Western Cape Provincial Minister of Health, Dr Nomafrench Mbombo. Tygerberg Hospital Children's Trust Contribution









Pictures: Courtesy of M-Net Publicity

The Blouberg Rotary Club made a R1 million donation on 17 November 2022 in the form of a cryoprobe and an ultrafine neonatal bronchoscope, both of which benefit children who require highly specialised lung surgery and treatment.



As published in the Western Cape Government TygerNews, December 2022.

### Tygerberg Hospital Children's Trust Contribution

TYGERBERG HOSPITAL CHILDREN'S TRUST
Charitable Trust No: 171585/2001
PBO No: 930004024
NPO No: 047-995-NPO



### 1. Donations to Tygerberg Hospital

Tygerberg Hospital Children's Trust articulates projects through baskets of care namely, Neonatology, General Paediatrics, Specialised Care and Social Development. The report below displays the support the Trust has provided to Paediatrics & Child Health at Tygerberg Hospital according to our Baskets of Care for the period 1st March 2022 to 28th February 2023.

#### 1.1 Equipment Purchases, In-Kind Donations, Aesthetic Improvements

Month	Category	Value	Items	Funding Basket
March 2022 – February 2023	Grant funding to TBH School	R550,250.00	School Support Programme Improvements	Social Development
March 2022	In-kind donations	R43,993.28	KMC mom and baby care packs Campaign awareness	Neonatology Neonatology
April 2022	In-kind donations	R41,608.28	Clothing - Adolescent Psychiatry in- patients Easter eggs for paediatric patients Campaign awareness	Specialised Care  General Paediatrics Social Development
May 2022	Equipment purchase  Equipment donation	R159,279.60 R79,639.80	2 x Billicare units TDW-MMS- 81000200-BiliCare System with charger & accessories 1 x Billicare units TDW-MMS- 81000200-BiliCare System with charger & accessories	Neonatology Neonatology
May 2022	In-kind donations	R263,618.00	THCT Golf Day fundraiser in-kind donations Campaign awareness	Neonatology
June 2022	Child and Family-centred Care Improvements	R50,400.00	Install Astro-turf at Adolescent Psychiatry. TBH School playground improvements and Astro-turf installation. Reading/Literacy Programme in paediatric units Specialised Care	
June 2022	In-kind donations	R46,770.00	Contractor Services for improvements at Adolescent Specialised Care Psychiatry and TBH School Social Developmen	
July 2022	In-kind donations	R169,096.98	KMC mom and baby care packs Holiday programme and inventory at Adolescent Psychiatry Improvements at Adolescent Psychiatry Improvements at TBH School	Neonatology Specialised Care Specialised Care Social Development

"Do your little bit of good where you are. It's those little bits of good put together that overwhelm the world."

Archbishop Emeritus Tutu



#### TYGERBERG HOSPITAL CHILDREN'S TRUST

Charitable Trust No: IT1585/2001 PBO No: 930004024 NPO No: 047-995-NPO



Month	Category	Value	Items	Funding Basket
August 2022	In-kind donations	R60,633.76	KMC mom and baby care packs TBH Women's Day Event	Neonatology
September 2022	In-kind donations	R52,330.60	KMC mom and baby care packs Clothing and resources for Adolescent Psychiatry	Neonatology Specialised Care
October 2022	Equipment	R1,000,000.00	SPO <sub>2</sub> Monitors Incubators	Neonatology
	Child and Family-centred Care Improvements	R254,603.07	Ward G9 Upgrade	Specialised Care
October 2022	In-kind donations	R291,112.28	KMC mom and baby care packs Holiday programme and inventory at Adolescent Psychiatry Hospital linen Books for TBH School Campaign awareness for World Preemie Festival	Neonatology Specialised Care General Paediatrics Social Development Neonatology
November 2022	Equipment	R79,639.80	Billicare units TDW-MMS-81000200- BiliCare System with charger & accessories	Neonatology
November 2022	In-kind donations	R340,127.40	Donations for World Preemie Festival Campaign awareness for World Preemie Festival	Neonatology Neonatology
December 2022	Child and Family-centred Care Improvements	R43,388.98	Ward G9 upgrade Campaign awareness	Specialised Care Specialised Care
December 2022	In-kind donations	R616,087.80	Ward G9 Upgrade + Launch  Baby care packs Christmas donations Holiday programme and inventory at Adolescent Psychiatry  Specialised Neonatolog General Pac Specialised	
January 2023	In-kind donations	R9761.00	Baby care packs & soft toys	General Paediatrics
February 2023	In-kind donations	R29,206.27	Baby soft toys Youth Development Programme at Adolescent Psychiatry	General Paediatrics Specialised Care

"Do your little bit of good where you are. It's those little bits of good put together that overwhelm the world."

Archbishop Emeritus Tutu



#### 2. Awareness

The table below displays awareness generated through mainstream print media, radio, television and digital media (social media and website) for the period March 2022 – February 2023.

Period	Value of Awareness Generated
March 2022 – May 2022	R3,496,738.08
June 2022 – August 2022	R1,299,324.71
September 2022 – November 2022	R9,267,471.00
December 2022 – February 2023	R1,059,507.15
TOTAL	R15,123,040.94

"Do your little bit of good where you are. It's those little bits of good put together that overwhelm the world."

Archbishop Emeritus Tut

THCT report compiled by Yolanda Smith (Projects Management) and Jason Falken (CEO)

### Part 2

# Community Outreach Programmes/Community Service and Interaction & Partnerships

### **Expert Members**

### Prof M Kruger

- AVAREF/MRCT Center Committee for Ethics Training (CET) of the Multi-Regional Clinical Trials Center (MRCT Center) of Brigham and Women's Hospital and Harvard (to develop capacity building of Ethics Committee members in Africa) from February 2021-present.
  - Monthly meetings and Harvard AVAREF MRCT Center's Ethics Review of Clinical Research: A Virtual Training Course, 24 September 2021
  - Co-facilitator
    - \* XIII. Special considerations for vulnerable populations
    - \* XIV. Research ethics in emergency environments: pandemics/epidemics
- Clinical medicines evaluator of the Advisory Clinical Committee of the South African Health Products Regulatory Authority (SAHPRA)
- South African Medical Research Council Bioethics Advisory Panel (BAP)
- Member of the Council of the College of Paediatricians for the triennium 2020–2023
- Member of the Board of the Health Professions Council of South Africa (HPCSA)
- Member of the Health Professions Council of South Africa (HPCSA) Professional Practice Committee Meeting
- · Member of the Senate Research Ethics Committee of Stellenbosch University
- Member of the Health Research Ethics Executive Committee of the Faculty of Medicine and Health Sciences, Stellenbosch University
- Member of the African Cancer Institute (ACI) Governing Board
- Member of the Centre for Medical Ethics and Law (CMEL) Governing Board of the Faculty of Medicine and Health Sciences, Stellenbosch University
- Member of the Postgraduate Research Committee of the Faculty of Medicine and Health Sciences, Stellenbosch University
- Member of the Desmond Tutu TB Centre (DTTC) Governing Board
- Member of the Family Centre for Research with Ubuntu (FAMCRU) Executive Board
- · Member of the Editorial Board of the South African Journal of Child Health
- Trustee of the Tygerberg Hospital Children's Trust

### Prof S Kling (retired end of February 2021 and currently emeritus professor)

- Allergy Society of South Africa (ALLSA)
  - Member of Executive Committee

- · Chairman, Research Subcommittee
- Ethics accreditor, CPD Committee, Faculty of Medicine and Heath Sciences.
- · Vice-chair, Undergraduate Research Ethics Committee
- Member of the Health Research Ethics Executive Committee of the Faculty of Medicine and Health Sciences, Stellenbosch University
- Member, Clinical Ethics Committee Tygerberg Hospital
- Member, Dean's Advisory Committee on Environmental Sustainability

### **Prof AC Hesseling**

- NRF SARChi Chair in Paediatric Tuberculosis.
- Associate editor: International Journal against Tuberculosis and Lung Diseases, since 2009
- · Site PI, CDC TBTC Network, Site 33, Stellenbosch University, since 2009
- · Chair, Tuberculosis Scientific Committee, IMPAACT network, since 2011
- · Co-chair: Pediatric Interest Group, TBTC network, since 2010
- · Consultant: TB Alliance, Pediatric TB Unitaid program, since 2013
- Co-chair: PhD Committee, Department of Paediatrics and Child Health, Stellenbosch University, since 2015
- Member, Research committee (subcommittee C), Faculty of Medicine and Health Sciences, Stellenbosch University, since 2016
- · South African TB Think Tank, TB Prevention Task force core member, since 2017
- · Consortium Chair: South African Gates TB Demonstration and Scale-up, since 2018

### Prof MF Cotton (retired end of April 2021 and currently emeritus professor)

- President of World Society of Pediatric Infectious Diseases from 2019-2021.
- Member of the Clinical Guideline Development Group (GDG) to support the update of the World Health Organization Consolidated Guidelines on the use of antiretroviral drugs for treating and preventing HIV infection
- WHO HIV/TB Task Force Advisor

### Prof P Goussard

- Member of the South African Thoracic Society (SATS) Editorial Board
- International Advisory Board of the International Congress on Pediatric Pulmonology (CIPP)
- Faculty member of the European Respiratory Society (ERS) Skills course: paediatric bronchoscopy
- Co-Chair of the Here Be Lungs Conference
- Chair of the Tygerberg Hospital Children's Trust

### Prof HS Schaaf (retired end of December 2021 and currently emeritus professor)

- Board of Directors and Chairperson of Adult and Child Lung Health section, The Union (International Union Against Tuberculosis and Lung Disease)
- Expert on ATS/CDC committee for new TB guidelines
- MDR-TB Review Board Western Cape

#### Dr B Fourie

 Safety representative on Health and Safety Committee, Faculty of Medicine and Health Sciences

### Prof A Bekker

- Member of the WHO paediatric antiretroviral working group (PAWG) (2021 2023).
- International Maternal Pediatric Adolescent AIDS Clinical Trials Network (IMPAACT)
   P1106 vice-chair
- CDC: Tuberculosis Trials Consortium (TBTC) Tuberculosis and Pregnancy Working Group – membership
- Health Research Ethics Committee, Faculty of Medicine and Health Sciences
- Paediatric HIV advisory Board for ViiV
- · Collaborating with GARDP/DNDi on a NeoAMR global neonatal sepsis study

#### Prof J Lawrenson

- Ethics and Guidelines committee SA Heart Association
- Member of the Provincial Clinical Governance Committee (PCGC)

### Dr S Holgate

Member of Committee for Non-Invasive Ventilation in Paediatrics and Neonates

### Dr G Kali

- Neonatal Encephalopathy with Suspected Hypoxic Ischemic Encephalopathy (NESHIE) study local PI
- United South African Neonatal Association executive committee member vice president 2019-2021

### Prof R van Toorn

- PANDA executive committee member –treasurer
- Member of the Committee for Postgraduate Teaching of the Faculty of Medicine and Health Sciences, Stellenbosch University

#### Dr CJ du Buisson

South African Renal Society Executive Committee

#### Dr E Malek

- Chair of the Provincial Clinical Governance Committee (PCGC) Paediatrics, Newborn and Child Health
- Member of the Provincial 1st 1000 Days Executive Committee
- · Member of the Provincial Perinatal technical task team

### Dr R Uys

· Chair of the Governing Body of TBH school

#### Dr T Wessels

- Member of the Provincial Clinical Governance Committee (PCGC) Paediatrics, Newborn and Child Health
- Member of the Provincial Perinatal technical task team

#### Dr H Hassan

Member of the Provincial Perinatal technical task team

### Dr PS Springer (retired end of June 2021 and currently emeritus professor)

Member of the Governing Body of TBH school

#### Prof R Solomons

- · PANDA executive committee member
- Member of Academic Appointments and Promotions Committee, Faculty of Medicine and Health Sciences, Stellenbosch University
- Member of the International TB Meningitis Research Consortium
- End Point Review Committee Member- SURE Trial- Paediatric TB Meningitis
- Trustee of the Tygerberg Hospital Children's Trust

### Prof A Dramowski

- Member of the scientific advisory committee for the Global Antibiotic Research & Development Partnership (GARDP)
- National neonatal sepsis task force
- SASPID committee member
- · Chair the SU FMHS Undergraduate Research Ethics Committee
- Associate editor BMC Antimicrobial Resistance and Infection Control
- · Centre for Evidence-Based Healthcare governing board member

### Dr A Redfern

- Member, steering committee, Paediatric Emergency Care Society of South Africa (PECSA)
- Member, National Executive Committee, EMSSA
- Member, National Executive Committee, South African Paediatric Association

### Dr H Finlayson

- · Chairperson, Tygerberg Antimicrobial Stewardship Committee
- · Member, South African Antibiotic Stewardship Programme (SAASP) Working Group.
- Member, Ministerial Advisory Committee on Antimicrobial Stewardship.
- SASPID representative on the FIDSSA Expert Review Committee, and member of the National Neonatal Sepsis Working Group.

### **Prof A Slogrove**

- Member, Western Cape Provincial Health Data Centre Maternity Cascade Task
   Team
- Lead Coordinator, Worcester Campus Research Support Planning Team
- Member, WHO-IMPAACT Approaches to Enhance and Accelerate the Study of New Drugs for HIV and Associated Infections in Pregnant women – Surveillance and Clinical Trials Working Groups
- Member, WHO Technical Consultation for Guidance Review of Cotrimoxazole Prophylaxis in Infants who are HIV-exposed Uninfected – Core Working Group
- Expert reviewer, WHO Policy Brief 2021: Comprehensive Package of Care for Infants and Young Children Exposed to HIV

#### Dr DR Abraham

 Member of the executive committee of the South African Immunology Society (SAIS).

### Dr A da Costa

Member, Provincial Palliative Care Task Team

### Outreach

### Regional and District

- Worcester Profs R van Toorn, R Solomons, J Lawrenson, B Fourie & Dr C du Buisson
- Paarl Profs H Rabie, R van Toorn, R Solomons, Lawrenson and Dr B Fourie. HIV outreach: Dr Frigati/Rose; Palliative Care: Dr A da Costa
- · George Prof J Lawrenson, Dr B Fourie
- · East London Prof J Lawrenson, Dr B Fourie
- Delft Drs L Smit, R Gioio (HIV outreach)
- Helderberg Dr T Wessels; Perinatal Dr H Hassan, Dr Frigati/Rose, (HIV outreach)
- · Khayelitsha district hospital Prof H Rabie, Dr P Rose
- · Eersterivier Drs H Finlayson (HIV outreach), JCF du Preez
- · Ikwezi clinic HIV outreach
- · Bishop Lavis clinic, HIV outreach
- · Grabouw CHC HIV outreach
- · Kraaifontein CHC HIV outreach
- · Scottsdene MDR TB outreach clinic Prof Schaaf, Dr Rose
- Town 2 Khayelitsha MDR TB outreach clinic Prof Schaaf, Dr Rose
- · City of Cape Town DTTC
- · DTTC skills development in the community
- Karl Bremer Hospital, Haemophilia, Childhood Cancer Dr A van Zyl; Perinatal Dr H Hassan, Prof S Kling (General Paediatrics) and Dr H Finlayson (Antibiotic Stewardship), Neonatal – Neonatal team; Palliative Care: Dr A da Costa
- Brooklyn Chest Hospital Prof HS Schaaf, Dr H Finlayson
- · Paarl School for Children with Cerebral Palsy, Brackenfell---Dr Cilla Springer
- Western Cape Education Department outreach meeting for autism spectrum disorder, Chere Botha Centre, Bellville – Dr Cilla Springer
- Neurodevelopmental clinic HOPE doctors and occupational therapist have been assisting once a week in a voluntary basis.
- Alta du Toit School for Learners with Special Educational Needs, Kuils River---Prof R Solomons
- Dora Nginza Hospital neonatal unit (IPC and antibiotic stewardship) Prof A Dramowski
- De Doorns Clinic, Breede Valley sub-district Prof A Slogrove
- NORSA and ABBA Adoptions (guidance concerning care of infants who are HIVexposed) – Prof A Slogrove

### Media Exposure

### TV/Radio Interviews

- Dramowski: Guest interview on eNCA news discussing neonatal sepsis (May 2022) https://www.youtube.com/watch?v=mOW7dfb7Qx8
- Dramowski Guest on SABC3 Expresso morning show discussing childhood infections (March 2022) - <a href="https://www.youtube.com/watch?v=fcWBa6c40DA">https://www.youtube.com/watch?v=fcWBa6c40DA</a>

### **Articles**

Name of publication: You

Name of article: Our little miracle

Link: https://www.dstv.com/m-net/en-za/show/carte-blanche/season/35/news/tygerberg-

hospital-neonatal-paediatric-cardiothoracic-icu-project/news

Date: 3 March 2022

Name of publication: Twitter (EWN Reporter, Carte Blanche, Multichoice Group &

Karolina Andropoulos)

Name of article: Carte Blanche Making a Difference Trust - Tygerberg Hospital - a

Cardiothoracic ICU & an Isolation ICU

Links: https://twitter.com/ewnreporter/status/1556653529359687680?

ref\_src=twsrc%5Etfw; https://twitter.com/carteblanchetv/status/969243384731897857;

https://twitter.com/MultiChoiceGRP/status/1558119059417440261

Date: 8 August 2022

Name of publication: EWN News

Name of article: Tygerberg Hospital's Paediatric Healthcare Gets A Boost

**Link**: https://ewn.co.za/2022/08/08/tygerberg-hospital-s-paediatric-healthcare-gets-a-

boost

Date: 8 August 2022

Name of publication: Tygerburger

Name of article: Carte Blanche for Health

Link: https://ewn.co.za/2022/08/08/tygerberg-hospital-s-paediatric-healthcare-gets-a-

boost

Date: 10 August 2022

Name of publication: My Cape Town

Name of article: Tygerberg Hospital neo-natal and paediatric ICUs refurbished by Carte

Blanche Making a Difference Trust

Links: https://mycapetown.co.za/tygerberg-hospital-neo-natal-and-paediatric-icus-

refurbished-by-carte-blanche-making-a-difference-trust/

Date: 9 August 2022

Name of publication: Kuier/Netwerk24

Name of article: Inspirasie: Longe laat dié dokter se hart warm klop

Links: https://www.netwerk24.com/netwerk24/kuier/inspirasie-longe-laat-die-dokter-se-

hart-warm-klop-20220923 **Date**: 23 September 2022

Name of publication: loL/Weekend Argus News

**Name of article:** Tygerberg Hospital receives new paediatric bronchoscopy equipment **Links:** <a href="https://www.iol.co.za/weekend-argus/news/tygerberg-hospital-receives-new-paediatric-bronchoscopy-equipment-5dfbf10a-3a76-47c2-a4ac-53f65b60d6db">https://www.iol.co.za/weekend-argus/news/tygerberg-hospital-receives-new-paediatric-bronchoscopy-equipment-5dfbf10a-3a76-47c2-a4ac-53f65b60d6db</a>

Date: 19 November 2022

Name of publication: TygerNews

Name of article: Donation

Links: https://mycapetown.co.za/tygerberg-hospital-neo-natal-and-paediatric-icus-

refurbished-by-carte-blanche-making-a-difference-trust/

Date: December 2022

Name of publication: Faculty Publication 2022

Name of article: Multidisciplinary Teams At Tygerberg Join Forces In Radical Surgery Links: <a href="https://www0.sun.ac.za/fmhsannualpublication/2022/innovation/multidisciplinary-">https://www0.sun.ac.za/fmhsannualpublication/2022/innovation/multidisciplinary-</a>

teams-at-tygerberg-join-forces-in-radical-surgery.html

Date: December 2022

Name of publication: Daily Maverick & SAMRC website

Name of article: Why all children older than 12 need to get the COVID-19 jab

**Links:** https://www.dailymaverick.co.za/article/2021-12-05-why-all-children-older-than-12-need-to-get-the-covid-19-jab/ & https://www.samrc.ac.za/news/why-all-children-older-12-need-get-covid-19-

jab#:~:text=Children%20constitute%20a%20third%20of,to%20normal%20development%20and%20health.

Date: 5 December 2022

### Part 3

### **Teaching & Training**

**Undergraduate Students -** 97% pass rate (98% in 2021)

### **Postgraduate Students**

### Successful PhD Candidates

Mr Dillon Wademan: Title: Chronic conditions and care: Intergenerational experiences
of living with HIV, TB, and diabetes in South Africa. Supervisors: Dr G Hoddinott

### **Enrolled PhD students**

- Me Michaile Anthony: Title: Health-related quality of life among children with respiratory illnesses in South Africa. Supervisors: Dr Graeme Hoddinott, Prof Marieke van der Zalm.
- **Dr Corne de Vos**: Title: A bio-psyco-social follow-up model for children born with an oesophageal atresia with/or without a tracheo-oesophageal fistula. Supervisors: Prof Pierre Goussard, Dr Lizelle van Wyk, Prof Daniel Sidler.
- Dr Miemie du Preez: Title: The Baby Book Project. Dosing with Words. Can nursery rhyme reading by mothers, during hospital stay, enhance neurodevelopment and maternal-infant interaction in premature infants? Supervisors: Profs J Smith, P Cooper, L Murray.
- **Dr Thembi Katangwe**: Title: Children with cerebral palsy: Current needs and challenges in the Western Cape. Supervisors: Profs M Kruger, R van Toorn, K Donald; Co-investigators Profs R Solomons, S Steel.
- Dr Yajna Kooblal: Title: The relationship of body composition on nutritional and immunological status in childhood tuberculosis. Supervisors: Prof Ronald van Toorn, Dr Martijn van der Kuip, Prof Marceline Tutu van Furth
- **Dr Lizel Lloyd**: Title: Hospital-acquired neonatal infection in very low birth weight infants: optimizing diagnostic strategies for low-resource settings. Supervisors: Profs Angela Dramowski, Adrie Bekker, Miriam an Weissenbruch
- Dr Megan Palmer: Title: Refining the Role of the Chest Radiograph in Paediatric Tuberculosis Clinical Care and Research. Supervisors: Profs Anneke Hesseling, Pierre Goussard
- Dr Penny Rose: Title: Determinants of liver disease in HIV-infected children in the era
  of early antiretroviral therapy. Supervisors: Profs SV Innes, ED Nel
- Me Judy Schoeman: Title: Nutritional status of children at cancer diagnosis and during treatment, with a focus on the association with their clinical outcome. Supervisors: Profs M Kruger, Elena J. Ladas and Paul Rogers.
- Dr Anel van Zyl: Title: Long-term follow-up and care of childhood cancer survivors in South Africa. Supervisors: Profs M Kruger and P Rogers

- **Dr Adele Greyling**: Title: The application of radio frequency catheter ablation with remote magnetic navigation in paediatric and adult congenital heart disease patients. Supervisors: Prof Mariana Kruger, Prof S Ernst, Prof H Ntsinjana
- Ms Nosivuyile Vanqa: Title: Health workers as mediators of DR-TB information to prepare patients for treatment initiation and support adherence – an exploratory study in the Khayelitsha sub-district of the Western Cape Province, South Africa. Supervisors: Drs Sue-Anne Meehan, Graeme Hoddinott.
- Dr Deepthi Raju Abraham: Title: MIS-C in South African children: Integration of clinical and immunological profiles. Supervisors: Prof Helena Rabie, Prof R Glasshoff, Prof Marieke van der Zalm. Successful Masters Candidates

### Successful Masters Candidates

### MPhil (Neonatology)

Dr Ilhaam Abrahams

### MPhil (Paediatric Infectious Diseases)

Dr Juanita Lishman MPhil(Paed Neurology)

### MPhil (Paed Neurology)

Dr Magriet van Niekerk

### MMed (Paed)

- Dr Mikhail Barday
- Dr Lynne Booysen
- · Dr Siya Bovula
- · Dr Jameel Busgeeth
- · Dr Joanie Duvenage
- Dr Charlé Gobetz
- Dr Suzanne Kerswill
- Dr Wakheel Mathure
- Dr Serini Murugasen *cum laude* (passed all 5 MMed modules with distinction)
- Dr Sandra Sebitosi-Van Jaarsveld
- Dr Candice Shah
- Dr Carine van der Merwe

# Colleges of Medicine of South Africa (CMSA)

# Certificate in Neonatology

Dr Ilhaam Abrahams

## Certificate in Paediatric Infectious Diseases

Dr Juanita Lishman

# Certificate in Paediatric Neurology

Dr Magriet van Niekerk

# Certificate in Paediatric Pulmonology

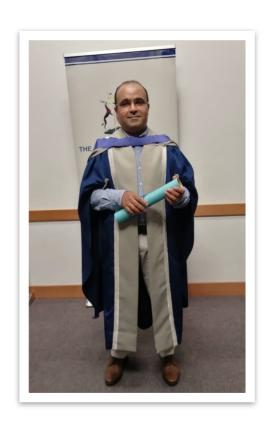
Dr Andre Gie (Connor Farrell Medal Recipient)

# Certificate in Paediatric Oncology

Dr Emad Elhuni

# Certificate in Paediatric Gastroenterology

Dr Emhemed Elkhatiali



## CMSA FC Paed Part II

Dr Mish-Al Barday

Dr Larissa Barker

Dr Siya Bovula

Dr Jameel Busgeeth

Dr Cordelia Ely

Dr Rizqah Johaar

Dr Rahja Kauluma

Dr Serini Murugasen (Robert McDonald Medal recipient)

Dr Audrey Sullivan

Dr Carine van der Merwe





## **Education-related Activities**

All consultants are involved with under- and postgraduate teaching and supervision daily.

## Education Committees of the Department

## Undergraduate

- Dr Noor Parker (Chairperson)
- · MBChB II: Dr Thandi Wessels (Chair), Sister Liesl Yzelle, Dr Lizel Lloyd
- Early rotation: Dr Haseena Hassan (Chair), Prof Helena Rabie, Dr Marlene Morkel, Sr Lise Yzelle, Dr A'ishah da Costa, Dr Muneerah Satardien
- Middle rotation: Dr Christel du Buisson (Chair), Dr Magriet van Niekerk, Dr Ronelle Uys, Dr Yajna Kooblal, Dr Miemie Du Preez, Dr Sandi Holgate
- SI: Dr Barend Fourie (Chair), Dr Lisa Frigati, Dr Lizelle van Wyk, Dr Marlene Morkel, Dr Angeline Thomas, Dr Michele Grantham, Dr Gugu Kali
- · Remedial: Dr Marlene Morkel, Sr Lise Yzelle
- · Elective students: Dr Magriet van Niekerk, Prof Mariana Kruger
- Renewed Undergraduate Curriculum: Dr Liesl Smit (Chair), Prof Helena Rabie, Prof John Lawrenson, Dr Haseena Hassan, Dr Andrew Redfern, Dr Lisa Frigati, Dr Thandi Wessels
- · E-Learning: Dr Marlene Morkel

# Postgraduate

Prof Ronald van Toorn (Chair), Dr Heather Finlayson, Prof Pierre Goussard, Dr Sandi Holgate, Dr Gugu Kali, Prof Etienne Nel, Dr Noor Parker, Prof Amy Slogrove, Prof Regan Solomons, Dr Lizelle van Wyk & registrar representative

#### PhD Research

Prof Mariana Kruger (Chair), Prof Pierre Goussard, Prof Adrie Bekker, Prof Angela Dramowski, Prof Anneke Hesseling, Prof Etienne Nel, Prof Ronald, Prof Regan Solomons, van Toorn, Prof Marieke van der Zalm, Dr Lizelle van Wyk

ANNUAL REPORT FOR PAEDIATRICS AND CHILD HEALTH

## Senior registrars in training

- Neonatology: I Abrahams, S Abushkiwa (Supernumerary from Libya), T Jones, Y Mohamed (Supernumerary from Sudan), Drs T Mogotsi (Supernumerary from Botswana)
- Paediatric Critical Care: Dr A Abdallah (Supernumerary from Sudan)
- Paediatric Gastroenterology: Drs E Elkhatiali (Supernumerary from Libya), Y Monteiro, sponsored by a Nestle Nutrition Institute Fellowship endorsed by the European Society of Paediatric Gastroenterology (Supernumerary from Mozambique)
- Paediatric Infectious Diseases: Drs A Asante (Supernumerary from Ghana), J Lishman, RC Krause (Supernumerary from South Africa)
- Paediatric Neurology: Drs HH Mohammed (Supernumerary from Sudan), M van Niekerk
- Paediatric Oncology: Drs D Alajeil and E Elhuni (*Supernumeraries from Libya*)
- · Paediatric Pulmonology: Drs AR Gie, N Geddara (Supernumerary from Sudan)
- Paediatric Rheumatology: Dr N Yunis (Supernumerary from Libya)



## Part 4

# Achievements and Highlights

# **Appointments**

- **Prof Helena Rabie** appointment as Clinical Unit Head Paediatric Infectious Diseases from 1 January 2022.
- Dr Elri du Plooy appointed as paediatric intensivist from 1 January 2022.
- Dr Michele Grantham appointed as paediatric endocrinologist from 1 June 2022.
- Dr Penny Rose appointed as paediatric gastroenterologist from 1 July 2022.
- Prof Angela Dramowski appointed as Vice-Chair of the PENTA ID working group on serious bacterial infections in neonates and children.
- Prof Regan Solomons appointed as new Executive Head: Paediatrics and Child Health from 1 January 2023

#### Grants/Awards

**Profs Mark Cotton and Helena Rabie:** Received the Stellenbosch University (SU)'s Research Excellence Award – held on 29/8/2022 - SU researchers who made the biggest contribution in terms of accredited publications (based on audited publication statistics of 2020 publications submitted to the Department of Higher Education and Training – DHET.

**Dr Serini Murugasen:** Received SAPA & SAJCH Junior Research Runner Up Award for her abstract and oral presentation of her MMed (Paed) research "A systematic review of cerebral palsy in African paediatric populations" presented at the 2022 Annual SAPA & SAJCH Research Day held virtually on 9 September 2022.

#### NRF ratings

#### New

Prof Pierre Goussard awarded a B3-rating Prof Regan Solomons awarded a C1-rating

#### Rating retained

Prof Angela Dramowski C2

#### Current

Prof Mark F Cotton	A1
Prof H Simon Schaaf	A1
Prof Adrie Bekker	В3
Prof Anneke C Hesseling	B1
Prof Peter B Hesseling	C2
Prof Steve Innes	C3
Prof B Laughton	C1
Prof Ronald van Toorn	C1
Prof Ekkehard Zöllner	C2
Prof Amy L Slogrove	Y1

# Sabbatical leave

Dr Barend Fourie - 1 July to 31 August 2022

# Conferences/Workshops/Courses

# Organized

The department held the Paediatric Academic Day of Excellence in honour of the retirement of Professors Etienne Nel and Ekkehard Zöllner on 13 April 2022 and on 25 November 2022 in honour of Professor Mariana Kruger as a hybrid events, Faculty of Medicine and Health Sciences, Tygerberg.

Prof Simon Schaaf & Anneke Hesseling

XIVth International Child Tuberculosis Training Course from 11-16 September 2022 at Goudini.

Prof Pierre Goussard and Dr Lizelle van Wyk

11th Here be Lungs Conference - "Changes at the 11th hour", held from 7-9 December 2022 at the Raddison Blue Hotel, Cape Town.

## **Presentations**

# Prof Mariana Kruger

- Cardiac Arrhythmia Society of Southern Africa's (CASSA) Annual Clinical Virtual Symposium 2022, 26 February 2022
  - Invited Faculty: How do we apply International Guidelines in a Resource Limited Setting
- 2. Online attendance and presentation at the 14th International Society of Paediatric Oncology (SIOP) Africa congress to be held on March 16th through 18th, 2022 in Kampala, Uganda.
- 3. AVAREF MRCT Center's Training for Ethics Review of Clinical Research: A Virtual Training Course for Africa, held on Tuesday, 05 April 2022 Lecturer
- 4. AVAREF MRCT Center's Training for Ethics Review of Clinical Research: A Virtual Training Course for Africa, held on Thursday, 07 April 2022 Lecturer
- 5. AVAREF MRCT Center's Training for Ethics Review of Clinical Research: A Virtual Training Course for Africa held on Thursday, 14 April 2022 Lecturer
- 6. CHOC Childhood Cancer Foundation SA Webinar, 29 June 2022
  Invited Faculty: Early warning signs of retinoblastoma
- 7. 54<sup>rd</sup> SIOP Congress of the International Society of Paediatric Oncology (SIOP): 28 September 1 October 2022, Barcelona, Spain.

Free paper presentation collaborations:

Socio-economic status is a determinant of childhood cancer outcomes in South African children - Marc Hendricks; Annibale Cois; Jennifer Geel; Jaques Van Heerden; Kirsten Donald; Mariana Kruger

Poster discussion presentation:

Psychosocial distress of adult childhood cancer survivors in a South African cohort - Anel Van Zyl1; Sandile Ndlovu, Paul Rogers, Mariana Kruger

Poster

Changes in anthropometrical status and body composition during intensive onco-chemotherapy in children - Kellerman, R Blaauw, J Schoeman, M Kruger

#### Prof Pierre Goussard

1. ERS Paediatric Bronchoscopy, Naples, Italy, 28-30 March 2022 (*Invited speaker* - Virtual)

Interventional bronchoscopy in children including foreign body extraction

Congress of the South African Thoracic Society (SATS), Century City, Cape Town, 5-7 May 2022

Paediatric Bronchoscopy (Invited speaker)

Airway surgery in children (*Invited speaker*)

Paediatric Pulmonology: Asthma/Wheezing (Session chair)

Paediatric Pulmonology: ILD in children (Session chair)

- 3. Annual Egyptian Congress of Pediatric Pulmonology (ECPP), 18 May 2022 Pediatric airway surgery (*Invited speaker* Virtual)
- 4. 66th FMHS Annual Academic Day, Faculty of Medicine and Health Sciences, 1 September 2022 (*Invited State of the Art speaker*)

Pediatric bronchoscopy: The role of an expensive toy in the developing world

5. International Paediatric TB Training Course 2022, Desmond Tutu TB Centre (DTTC), Stellenbosch University, Goudini Spa, South Africa, 12 September 2022 (*Invited speaker*)

The use of advanced imaging in the diagnosis of pulmonary TB

- 6. PATS & ERS Joint Paediatric Webinar, 13 September 2022 *Invited speaker*)

  Long COVID in children
- 7. ERS Paediatric Bronchoscopy, Naples, Italy, 10-12 October 2022
  Interventional bronchoscopy in children including foreign body extraction (*Invited speaker*)
- 8. XXVI National Congress SIMRI Palermo, Italy, 27-29 October 2022 (*Invited speaker*) Diagnosis and management of congenital airway abnormalities
- Oesophageal Atresia Update. The multidisciplinary Approach. Presented by Division of Paediatric Surgery, Faculty of Medicine and Health Sciences, Tygerberg, 18 November 2022 (*Invited speaker*)

Pre- and postoperative bronchoscopy

10. The 34th Annual conference of Indian Academy of Pediatrics National Respiratory Chapter (RESPICON), Chennai, India, 17 December 2022 (*Invited speaker - Virtual*)

Interventional Pulmonology

## Prof Angela Dramowski

1. IPC for neonates and young children, PENTA Paediatric Investigator meeting, Sorrento, Italy, 27-30 April 2022.

- 2. Antibiotics for Neonatal Sepsis in Africa, Gates Grand Challenges Convening, Nairobi, Kenya, 25-27 May 2022.
- 3. Neonatal healthcare-associated infections (HAI): epidemiology and prevention in Sub-Saharan Africa. USANA conference, Cape Town 8-11 September 2022.
- 4. Healthcare worker vaccination. 9th FIDSSA Congress, Durban, 3-5 November 2022.
- 5. Neonatal infection prevention. 9th FIDSSA Congress, Durban, 3-5 November 2022.
- 6. Western Cape Provincial Antimicrobial Stewardship Symposium, 21 November 2022, Trends in neonatal sepsis epidemiology and implications for empiric antibiotic therapy
- 7. Stellenbosch University World Antimicrobial Awareness Week Symposium, 22 November 2022, Collateral damage: the impact of antimicrobial resistance on maternal-newborn health in Africa
- 8. Western Cape Infection Control Society, 21 November 2022, NeoCLEAN: a multimodel strategy to enhance environmental cleaning in a resource-limited neonatal unit.

## Prof Adrie Bekker

- Speed Dialling Neonates to the IDEAL Postnatal Prophylaxis Regimen. Symposium Speaker. 29th Conference on Retroviruses and Opportunistic Infections. USA, 12-16 Feb 2022
- 2. Neonatal Sepsis, PENTA Paediatric Investigator meeting, Sorrento, Italy, 27-30 April 2022.
- 3. Cabotegravir & rilpivirine antiretroviral therapy in pregnancy (CREATE) IMPAACT 204 protocol development meeting. USA, June 2022
- 4. WHO: Paediatric Drug Optimization (PADO) for Antibiotics (Rapporteur)

## Attended

## Prof Mariana Kruger

 Good Clinical Practice – Refresher Course, Bioethics Unit – Tygerberg Division, Stellenbosch University (Online), 8 February 2022

## Prof Pierre Goussard

- WHO-ISR-WFPI World TB Day 2022 Scientific Symposium: Updated WHO Guidelines on the Management of Tuberculosis in Children and Adolescents: The Role of Chest Radiography, 24 March 2022 (Virtual)
- 2. FMHS Health Data Science Workshop, 27 & 28 July 2022, Fissan Building, Tygerberg Campus.

# **Publications**

# JOURNAL ARTICLES (SUBSIDISED)

- 1. ABRAHAM DR, BUTTERS C, YUNIS N, LISHMAN J, SCOTT C, VAN DER ZALM MM, ZUHLKE L, RABIE H, WEBB K. The impact of SARS-CoV-2 variants on the clinical phenotype and severity of multisystem inflammatory syndrome in children in South Africa. *Pediatric Infectious Disease Journal* 2022; **41**:e510-e512.
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- 3. AFUNGCHWI GM, KRUGER M, HESSELING PB, VAN ELSLAND S, LADAS EJ, MARJERRISON S. Survey of the use of traditional and complementary medicine among children with cancer at three hospitals in Cameroon. *Pediatric Blood & Cancer* 2022; **69**:e29675.
- 4. AKKERMAN OW, DUARTE R, TIBERI S, SCHAAF HS, LANGE C, ALFFENAAR J-W, DENHOLM J, CARVALHO AC, BOLHUIS MS, BORISOV S, BRUCHFELD J, CABIBBE AM, ET AL AL. Clinical standards for drug-susceptible pulmonary TB. *International Journal of Tuberculosis and Lung Disease* 2022; **26**(7):592-604.
- 5. ALFFENAAR J-W, STOCKER SL, FORSMAN LD, GARCIA-PRATS AJ, HEYSELL SK, AARNOUTSE R, AKKERMAN OW, ALEKSA A, VAN ALTENA R, ARRAZOLA DE ONATA W, BHAVANI PK, VANT BOVENEIND-VRUBLEUSKAYA N, HESSELING AC, ET AL AL. Clinical standards for the dosing and management of TB drugs. . International Journal of Tuberculosis and Lung Disease 2022; 26(6):483-499.
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- 7. ANDRONIKOU S, MIRANDA-SCHAEUBINGER M, GOUSSARD P, FRIGATI LJ, ZAR H, DERBEW HM, OTERO HJ. Changes in the role of chest radiographs for diagnosing and managing children with tuberculosis: the 2022 World Health Organization consolidated guidelines on tuberculosis. *Pediatric Radiology* 2023; **53**(1):566-570.
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- 9. AVIHINGSANON A, HUGHES MD, SALATA RA, GODFREY C, MCCARTHY C, MUGYENYI P, HOGG E, GROSS R, CARDOSO SW, BUKURU A, MAKANGA M, BADAL-AESEN S, VAN SCHALKWYK M, ET A. Third-line antiretroviral therapy, including raltegravir (RAL), darunavir (DRV/r) and/or etravirine (ETR), is well tolerated and achieves durable virologic suppression over 144 weeks in resource-limited settings: ACTG A5288 strategy trial. *Journal of the International AIDS Society* 2022; 25:e25905.
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- 32. DELANY-MORETLWE S, HUGHES JP, BOCK PA, DADABHAI S, GADAMA D, HUNIDZARIRA P, INNES SEV, KALONJI D, MAKHEMA J, MANDIMA P, MATHEW C, MPENDO J, ET AL AL. Long acting cabotegravir: updated efficacy and safety results from HPTN 084. *Journal of the International AIDS Society* 2022; **25**(S3):e25935.
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# Part 5

# Meet the Staff

# **DEPARTMENT of PAEDIATRICS** and CHILD HEALTH



**Western Cape** Government



SUBSPECIALIST PAEDIATRICS



**Prof Regan Solomons Executive Head of Department** Neurology

## **Heads of Clinical Units**



**Prof Pierre Goussard** Pulmonology & PICU



Dr Gugu Kali Neonatology



**Prof John Lawrenson** Cardiology



**Prof Helena Rabie** Infectious Diseases

Prof Adrie Bekker Neonatology



Dr Christel du Buisson Nephrology



Dr Elri Du Plooy Intensive Care



**Dr Heather Finlayson** Infectious Diseases



**Dr Barend Fourie** Cardiology



Dr André Gie Pulmonology



Dr Michele Grantham Endocrinology



Dr Sandi Holgate Neonatology



Dr Lizel Lloyd Neonatology



Dr Noor Parker Intensive Care



Dr Muneerah Satardien Neonatology



Dr Leilah Schoonraad Oncology & Haematology



**Dr Angeline Thomas** Neurodevelopment



Dr Magriet van Niekerk



Prof Ronald van Toorn Neurology



Prof Lizelle van Wyk Neonatology



Dr Anel van Zyl Oncology & Haematology





**GENERAL PAEDIATRICS** 

#### **Head of Clinical Unit**



Prof Angela Dramowski Infectious Diseases

#### **Senior Specialists**



Dr A'ishah da Costa Generalist



Dr Miemie du Preez Neonatology



**Dr Juanita Lishman** Infectious Diseases



Dr Lisa Frigati Infectious Diseases



Dr Haseena Hassan Neonatology



Dr Andrew Redfern Neurodevelopment



Dr Liesl Smit Generalist



Dr Thandi Wessels Generalist





#### Part-time/Contract Specialists, Subspecialists, Lecturers and Researchers



Dr Deepthi Abraham Rheumatologist



Dr Ilhaam Abrahams Neonatologist and Research Doctor



Dr Mikhail Barday Research Doctor and Paediatrician



Mr Shiraaz Bawa Data Capturer



Prof Mark Cotton
Principal Investigator, Infectious
Diseases/FAMCRU



Dr Kate Browde Allergoloist



Dr Aaqilah Fataar Research Medical Officer



Dr Leonore Greybe Lecturer and Paediatrician



Dr Yajna Kooblal Senior Lecturer and Paediatrician



Prof Mariana Kruger Principal Investigator, Oncology & Haematology



Dr Bradley Manthey Research Medical Officer



Mrs Mandisa Mamputa Research Assistant



Ms Refilwe More Research Intern



Dr Marlene Morkel Clinical Facilitator and Paediatrician



Dr Chantelle Myburgh Medical Officer



Dr Lesego Ndhlovu Gastroenterologist



Ms Sandile Ndlovu Data Manager



Sr Awanda Ntshinka Research Nurse



Dr Deveshni Reddy Nephrologist



Dr Delano Rhode Pulmonologist



Prof Simon Schaaf Principal Investigator, Infectious Diseases/DTTC



**Prof Amy Slogrove** Principal Investigator, Infectious Diseases



Dr Audrey Sullivan Research Medical Officer



Sr Lize Yzelle Senior Lecturer





#### SUBSPECIALIST PAEDIATRICS

#### **Senior Registrars in Subspecialist Training**



Dr Montasir Abdallah Critical Care



Dr Adraina Asante Infectious Diseases



Dr Dunia Alajeil Oncology & Haematology



Dr Lynne Booysen Endocrinology



Dr Nagib Geddara Pulmonology



Dr Haifa Hblous Neurodevelopment



Dr Tom Jones Neonatology



Dr RC Krause Infectious Diseases



Dr Yolanda Monteiro Gastroenterology



Dr Yunis Mohamed Neonatology



Dr Hiba Mohammed Neurology



Dr Leigh-Ann Wood-Pottle Neuro-Development



**Dr Nurea Yunis** Rheumatology









**Dr Frances Ashton** 



Dr Larissa Barker



Dr Jennah Berony





Dr Feruskah Brink



Dr Megan Davies



Dr Elmaré De Kock



Dr Renisha Desai



Dr Pierre de Villiers



Dr Sarah Dobson



Dr Pippa Durr





Dr Meryl Geldenhuys



Dr Jayandree Gouden



Dr Michele Haumann



Dr Lahia lipumbu



Jugurnauth



Dr Jafet Kamati





Dr Ashish Madhou







Dr Aaishah Manan



**Dr Suzette Manoto** 



Dr Christy Milligan



Dr Sabeeha Moosa



Dr Mwaka Mubita



Dr Zanele Mukahiwa



Dr Evelyine Mushi



Dr Desharan Naidoo



Dr Viasha Naidoo





Dr Mareli Nieuwoudt





Dr Michael Nyamuranga



Dr Shama Patel



Dr Simone Rayner



Dr Jo-Mari Read



Dr Schwellness



Dr Mehdi Shaikh-Abdoola



Dr Josephina



**Dr Isack Shinime** 



Dr Kushbu Soni



Dr Genevieve Theron



Dr Paula Wamelink



Dr Badi Watunda





#### **Principal Medical Officers**



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**Dr Ronelle Uys** 

#### **Medical Officers**



Dr Mishal Barday



Dr Sajda Basaeid





Dr Callie Buxey Dr Bryce Cupido Dr Robert Cloete





**Dr Claire Edson** 





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Dr Melissa Kerspuy



Dr Krisnah Keyser





Dr Malebo Kgatle Dr Minette Maré



Dr Natania Moodley



Dr Mbasakazi Mqikana



Dr Larina Narainsamy



Dr Christelle Nyanda Lentchou



Dr Carolin Parkin



**Dr Rosalind** Pengelly



Dr Yolande Prinsloo



Dr Umr Rasdien



Dr Sumaya Said



Dr Odette Viola





**ADMINISTRATIVE STAFF** 

#### **Tygerberg Hospital**



Ms Salomé Engelbrecht Administration Clerk Highly Specialised Services



Mrs Mandy Herdien Secretary General Specialised Services

#### **Stellenbosch University**



Ms Jennifer Adams Secretary



Ms Anita Fourie
Senior Administrative Officer/
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Ms Lavinia Maliwa Assistant



Mrs Nelda Meyer Administrative Officer A1/ Undergraduate Studies



Mrs Portia Permall Principal Secretary





# Desmond Tutu TB Centre Department of Paediatrics and Child Health Faculty of Medicine and Health Sciences Stellenbosch University Annual Report 2022



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#### 1. Highlights and activities

Key events and achievements

- On the 25<sup>th</sup> of March 2022, the DTTC commemorated World Tuberculosis (TB) Day and held a celebration of Archbishop Desmond Tutu's Life.
- The DTTC were key contributors to the May 2022 updated World Health Organization (WHO)'s paediatric and adolescent TB recommendations including shorter treatment for drug-susceptible TB, the use of bedaquiline and delamanid in children with drug-resistant TB down to age 0, using stool for the rapid diagnosis of TB in children, the shorter and more intensive treatment of TB meningitis in children, and the use of evidence-based clinical algorithms to diagnose children with TB at the primary healthcare level. The DTTC team contributed significantly to the body of new evidence reviewed and adopted in the guidelines.
- Anneke Hesseling was featured in the launch of the World Health Organisation's Global Accelerator for Paediatric Formulations Network video.
- The IMPAC19TB study held a two-day webinar event in March with presentations from South Africa (DTTC), Russia, Brazil, and India.
- Anneke Hesseling participated in the World Health Organisation Drug Resistant TB
   Guideline Development Group meeting
- Ciara Goslett, member of the BENEFIT Kids Project Community Advisory Board, presented at the UN/WHO Press event and was featured on the WHO World TB Day Online Talk Show.
- Megan Palmer, James Seddon, Pierre Goussard and Simon Schaaf, for the International Union against TB and Lung Disease, published the revised Diagnostic CXR Atlas for Tuberculosis in Children (second edition).
- Graeme Hoddinott was awarded the ARISE 5-year fellowship.
- Steve Graham presented a talk at the DTTC on the 14th of June on the Range of Challenges of TB in the Asia-Pacific Region.
- The Desmond Tutu TB Centre hosted the XIVth International Child TB Training Course at the Goudini ATKV Hotel & Spa in Worcester from 11th – 16th September 2022 for the first time since the onset of the COVID-19 pandemic
- The BENEFIT Kids Project distributed several newsletters and launched two videos as part of the ChilPref ML study.

- The WHO African regional meeting was held in Zambia, Lusaka, from 27-29th September.
   Gwynneth Hendricks, Anneke Hesseling, Tony Garcia-Pratts and Chiara Goslett (Community Advisory Board member) presented.
- The Desmond Tutu TB Centre had 10 presentations at the International Union Against Tuberculosis and Lung Disease annual conference and chaired several key sessions.
- Megan Palmer and Anneke Hesseling presented at the WHO operational guidance on the management of TB in children and adolescents: a game changer to save young lives. The Course organized as part of the 53rd Union World Conference on Lung Health.
- The DTTC Community Advisory Board held their Capacity Building & Annual Award Ceremony
- During 2022, staff from the DTTC contributed to 86 manuscripts in international peer reviewed academic journals.

#### 2. Research outputs/publications

During 2022, staff from the DTTC contributed to 86 manuscripts in international peer reviewed academic journals.

#### Peer-reviewed publications from the Desmond Tutu TB Centre: 2022

- Abraham DR, Butters C, Abdulbari Yunis N, Lishman J, Scott C, van der Zalm MM, Zühlke L, Rabie H, Webb K. The Impact of SARS-CoV-2 Variants on the Clinical Phenotype and Severity of Multisystem Inflammatory Syndrome in Children in South Africa. Pediatr Infect Dis J. 2022 Dec 1;41(12):e510-e512. doi: 10.1097/INF.000000000003691. Epub 2022 Sep 5. PMID: 36102719; PMCID: PMC9645446.
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#### Other publications

Palmer M, Seddon JA, Goussard P, Schaaf HS. Diagnostics XCR Atlas for tuberculosis in children. Second Edition. 2022. International Union against TB and Lung Disease.

#### 3. Awards and Achievements

- Anneke Hesseling was featured in the launch of Global Accelerator for Paediatric
   Formulations Network brief video, available at <a href="https://vimeo.com/680317087/75d9acedf8">https://vimeo.com/680317087/75d9acedf8</a>
- Several staff members, including Graeme Hoddinott and Abenathi Mcinziba was mentioned in the TB Think Tank newsletter: https://tbthinktank.org/newsletter-edition-1/
- Lario Viljoen has been selected to join the AIDS Clinical Trials Group (ACTG) Scientific
   Agenda Steering Committee (SASC) as Behavioral Science Subcommittee (BSS) member.
- Abigail De Villiers was awarded the medal for the Top Masters in the FMHS at the Rector's Awards for Excellent Achievement.

#### 4. Personnel and human capacity

- DTTC supported postgraduate/graduate students enrolled:
  - O 10 PhD students
  - o 20 Masters students
  - o 1 Honours student
  - o 6 Undergraduates
- The following students graduated in December 2022:
  - Grayson Lamore: BCom Financial Accounting
  - o Dillion Wademan: PhD Dept of Paediatrics and Child Health
  - o Ingrid Courtney: MSc Clinical Epidemiology.
- Staff serving on HREC Committees
  - Sue-Ann Meehan served on the HREC 1 throughout the year

#### 5. Conferences, academic meetings, and events

#### Dutch Association of Physicians working in Tuberculosis Control (VvAwT), 14 Jan 2022, virtual

 Recent Developments in the Diagnosis and Treatment of Childhood Tuberculosis. James Seddon

### World Congress of the Society for Pediatric Infectious Diseases (WSPID) conference, 22 – 24 February 2022.

#### Oral presentations

- Lung function is impaired in adolescents with pulmonary tuberculosis during TB treatment.
   Marieke Van Der Zalm.
- 2. Long-term impact of SARS-COV-2 infection in children presenting to Tygerberg Hospital during the COVID-19 pandemic in Cape Town, South Africa. Isabelle de Wandel.
- 3. Tuberculous Meningitis. Symposium: Tuberculosis the latest developments. World Society of Paediatric Infectious Diseases. 24 Feb 2022, virtual. James Seddon

#### Poster presentation

 Pediatric tuberculous meningitis: Routine surveillance data from South Africa. Karen du Preez, Simon Schaaf, S'celo Dlamini, James Seddon, Muhammad Osman, Jeffrey R Starke, Anneke Hesseling.

#### 16th International Technology, Education and Development Conference. 7-8 March 2022.

#### Oral presentation

 Exploring psychology students' experience of their online learning experience in developing contexts: A qualitative study. Basadien, T., ..., Ilhan, E., Kavalieratos, Z., Mamutse, S., Nodo, O., Shongwe, L., Adonis.

#### Pan-African Psychology Congress (PAPU) Conference, 28 – 30 March 2022.

#### Oral presentations

 Exploring how relationships between older and younger black South Africans promote resilience in families. Dzunisani Baloyi and Tamlynn Jefferis.

#### Qiagen Panel Discussion for World TB Day. 24 March 2022.

• How to achieve the key TB elimination targets in the era of COVID-19? James Seddon.

The 40th Annual Meeting of the European Society for Paediatric Infectious Diseases (ESPID) conference. Athens, Greece and online. 9 - 13 May 2022.

#### Oral presentations

- Carla McKenzie: Recurrent TB in a cohort with suspected pulmonary TB / a Paradoxical case of missed resistance
- Isabelle Allende: Long-term impact of SARS-CoV-2 infection in children presenting to
  Tygerberg hospital during the COVID-19 pandemic in Cape Town, South Africa /
  "Asthmatic" wheeze in a young child? A clinical case presentation.

#### PAGE 2022 conference 2022

#### Poster

1. Relative bioavailability of delamanid dispersed in water in healthy volunteers. Y Zou, V de Jager, A Diacon, A Hesseling, A Garcia-Prats, EM Svensson

#### European Health Psychology Society Conference. Slovakia. 21-30 August.

#### Oral Presentation

1. Michaile Anthony

#### 7th South African National TB Conference, Durban. 13 – 16 September

#### Oral presentations

 Experiences of children with respiratory illnesses (including tuberculosis): a qualitative study from caregiver perspective in Cape Town, South Africa: Michaile G. Anthony, Graeme Hoddinott, Tembeka Mhlakwaphalwa, Abenathi Mcinziba, Angelique Pienaar, Asikhangele Mtshabe, Margaret Van Niekerk, Anneke C. Hesseling, Pierre Goussard, Marieke M. van der Zalm

- Challenges of conducting clinical research in low-middle income countires:Reflections on research field experiences from Cape Town, South Africa: M van Niekerk and M Anthony; I Dewandel; A Mfazwe; L Afrika; A Pienaar; B Bavuma; J Wolmarans; L Mpengesi; A Mtshabe; R Nelani; MM van der Zalm.
- 3. From consumptive chic to dirty disease: societal attitudes to tuberculosis as revealed in the arts and literature. Sue Purchase.
- 4. Lessons from a systematic tracing process aimed at reducing initial loss to follow-up (ILTFU) among tuberculosis (TB) patients in Cape Town, South Africa. Nosivuyile Vanqa, Graeme Hoddinott, Muhammad Osman, Lario Viljoen and Sue-Ann Meehan.

#### SACEMA Research Day. Stellenbosch. 5th-7th September 2022.

#### Oral presentation

 Modelling the impact of targeted universal testing for tuberculosis in South African healthcare facilities. Abigail K. de Villiers, Chu-Chang, Muhammad Osman, Nimalan Arinaminpathy, Florian M. Marx.

#### 24th International AIDS Conference, Montreal, Canada. 9 July - August 2022.

#### E-poster presentation

- The effect of universal testing and treatment for HIV on health-related quality of life data from the HPTN 071 (PopART) cluster randomised trial in Zambia and South Africa. K. Davis, M. Pickles, S. Gregson, J. Hargreaves, H. Ayles, P. Bock, T. Pliakas, R. Thomas, J. Ohrnberger, J. Bwalya, N. Bell-Mandla, K. Shanaube, W. Probert, G. Hoddinott, V. Bond, R. Hayes, S. Fidler, K. Hauck.
- Associations between HIV-related stigma and health-related quality of life among people living with HIV in Zambia and South Africa: Cross-sectional analysis of data from the HPTN071 (PopART) study. E. Hall, K. Davis, J. Ohrnberger, M. Pickles, S. Gregson, R. Thomas, J. Hargreaves, T. Pliakas, J. Bwalya, R. Dunbar, K. Shanaube, G. Hoddinott, V. Bond, P. Bock, H. Ayles, A. Stangl, D. Donnell, R. Hayes, S. Fidler, K. Hauck.

#### Stellenbosch 66th Annual 66th Academic Day

- Preferences for tuberculosis preventive therapy among children, adolescents, and caregivers in South Africa: A discrete choice experiment. Abenathi Mcinziba, Michael Strauss, Graeme Hoddinott, Dillon Wademan, Mohhadiah Rafique, Lucia N Jola, Chantel Streicher, Karen du Preez, Muhammad Osman, Jody Boffa, Harry Hausler, Anneke Hesseling, and Yael Hirsch-Moverman
- 2. Caregivers' perspectives on health-related quality of life domains for children with tuberculosis and other respiratory illnesses. Michaile G. Anthony, Graeme Hoddinott, Margaret Van Niekerk, Levern Africa, Angelique Pienaar, Asanda Mfwaze, Beauty Bavuma, Isabelle Dewandel, Carla Mckenzie, Anneke C. Hesseling, and Marieke M. van der Zalm
- 3. The experiences of caregivers of children with respiratory illnesses during the COVID-19 pandemic. Michaile G. Anthony, Graeme Hoddinott, Tembeka Mhlakwaphalwa, Margaret Van Niekerk, Isabelle Dewandel, Carien Bekker, Marieke M. van der Zalm.
- 4. Healthcare workers perceptions of the impact of COVID-19 on TB services and lessons learnt in BRICS countries. Dillon Wademan, Graeme Hoddinott, I Felker, C Almeida, A Purty, Sue-Ann Meehan, Y Schwartz, A Trajman, K Sachdeva, S Mattoo, U Singh.
- 5. "Why can't we do it for TB?": tuberculosis programme stakeholders' perspectives on lessons from the COVID-19 response in South Africa. Hanlie Myburgh, Dillon Wademan, Graeme Hoddinott, Sue-Ann Meehan, Muhammad Osman
- 6. Tuberculosis Preventive Therapy (TPT) implementation in three South African provinces: facility-level review. Dzunisani Baloyi D, Michaile Anthony, Kyla Meyerson, Sindi Mazibuko, Dillon Wademan, Lario Viljoen, Hanlie Myburgh, Karen Du Preez, Muhammad Osman, Yael Hirsch-Moverman, S Charalambous, H Hausler H, Anneke Hesseling and Graeme Hoddinott.
- 7. The health systems impact of COVID-19 on children with tuberculous meningitis through the lens of health care workers. Dzunisani Baloyi, Graeme Hoddinott, Hanlie Myburgh, Dillon Wademan, Anneke Hesseling, Karen Du Preez

- 8. Lessons from a systematic tracing process aimed at reducing initial loss to follow-up (ILTFU) among tuberculosis (TB) patients in Cape Town, South Africa. Nosivuyile Vanqa, Lario Viljoen, Graeme Hoddinott, Muhammad Osman and Sue-Ann Meehan on behalf of the LINKEDin study team.
- 9. Tracking of lung function during first weeks of treatment in adolescents with pulmonary tuberculosis. Marieke M van der Zalm, Vita Jongen, Ruan Swanepoel, Klassina Zimri, Gezila de Beer, Brian Allwood, Anneke C Hesseling, James A Seddon.
- 10. Pregnancy outcomes among South African women with tuberculosis in the context of HIV.

  Sue-Ann Meehan, Anneke C. Hesseling, Mariette Smith, Arne von Delft, Florian M. Marx,

  Muhammad Osman
- 11. Long-term impact of SARS-CoV-2 infection in children presenting to Tygerberg hospital during the COVID-19 pandemic in Cape Town, South Africa. Isabelle Dewandel

#### WORLD CONFERENCE ON LUNG HEALTH 2022. Virtual Event. November 8-11

#### Oral presentations

- Relative bioavailability of delamanid tablets dispersed in water in healthy adult volunteers.
   Yuanxi Zou, Elin M. Svensson, Andreas Diacon, Anneke C. Hesseling, Anthony Garcia-Prats,
   Veronique de Jager.
- 2. Predictors of treatment outcomes in children with rifampicin-resistant tuberculosis a global individual patient data meta-analysis. Anthony J. Garcia-Prats, Maria Garcia-Cremades, Vivian Cox, Kendra Radtke, Tamara Kredo, Rory Dunbar, Rada Savic, Anneke C. Hesseling.
- 3. The impact of COVID-19 on TB testing and diagnosis in children and adolescents in the Western Cape Province, South Africa. Karen du Preez, Mariette Smith, Arne von Delft, Andrew Boulle, Mary-Ann Davies, H. Simon Schaaf, Jeffrey Starke, Anneke C. Hesseling.
- 4. Chest X-ray features of non-severe pulmonary tuberculosis in children enrolled on the SHINE trial. Megan Palmer, Anneke C. Hesseling, Marieke. M. Van der Zalm, H. Simon. Schaaf, Pierre Goussard, Julie Morrison, Aarti Kinikar, Syed Hissar, Eric Wobudeya, Chisala Chabala, Anna Turkova, Di Gibb.

5. Tracking of lung function during antituberculosis treatment in adolescents with pulmonary

tuberculosis. Marieke M van der Zalm, Vita Jongen, Ruan Swanenpoel, Klassina Zimri, Gezila

de Beer, Brian Allwood, Anneke C Hesseling, James A Seddon.

6. Pharmacokinetics and optimized dosing of novel dispersible and non-dispersible

levofloxacin formulations in children. Louvina E. van der Laan, Anneke C. Hesseling, H.

Simon Schaaf, Megan Palmer, Heather R. Draper, Lubbe Wiesner, Jennifer Norman, Paolo

Denti, Anthony J. Garcia-Prats. (*Later breaker*)

Poster presentations

1. Treatment outcomes in young children with RR-TB treated with regimens including

bedaquiline and delamanid a global individual patient data meta-analysis. Maria Garcia-

Cremades, Anneke C. Hesseling, Kendra Radtke, Vivian Cox, Tamara Kredo, Alexander

Floren, Rory Dunbar, Rada Savic, Anthony Garcia-Prats.

2. Pregnancy outcomes among South African women with tuberculosis in the context of HIV.

Sue-Ann Meehan, Anneke C. Hesseling, Mariette Smith, Arne von Delft, Florian M. Marx,

Muhammad Osman.

Press Conference at the Union Meeting

1. Impact of COVID on TB testing and diagnosis in children and adolescents in the Western

Cape.

Speaker: Karen du Preez

Special sessions

1. Maternal TB Current Status, Research Gaps, and the Way Forward.

Presenter: H. Simon Schaaf

2. What will it take to eliminate TB stigma? Engaging communities in implementation research

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to develop person-centered TB stigma interventions.

Moderator: Graeme Hoddinott

Meet the expert session

1. Challenges in diagnosis and management of children and adolescents with TB.

Chair: James Seddon. Speaker: Farhana Amanullah, Pakistan

Symposium

1. Use of diagnostic algorithms to improve tuberculosis diagnosis in Children. Presentation:

Development and validation of a TB treatment decision algorithm for children in low

and middle-income countries – an individual patient data meta-analysis.

Speaker: James Seddon

2. Postgraduate Union Symposium

The Union and WHO's Global Tuberculosis Programme held a post-graduate course

on the latest updates from new WHO guidance on the management of TB in children

and adolescents. WHO operational guidance on the management of TB in children

and adolescents a game changer to save young lives. This course was organized as

part of the 53rd Union World Conference on Lung Health and was held on 25 Oct. 2022.

Presentation: Application of CXR reading and disease severity for the new shorter regimen

Presenter: Megan Palmer.

Presentation: The evolving landscape of MDR-TB treatment in children.

Presenter: Anneke C. Hesseling.

Available: https://www.who.int/news/item/19-10-2022-join-us-for-a-post-graduate-

course-on-the-latest-updates-on-new-who-guidance-on-the-management-of-tb-in-

children-and-adolescents--a-game-changer-to-save-young-lives--at-the-union-conference

Scaling TB Grant webinar series

1. Sue-Ann Meehan presented 'RETHINKING LINKAGE TO CARE. Through the lens of the

LINKEDin study in Western Cape Province'. This was the first in a series of webinars

organized as part of the data scaling TB grant in the Western Cape to address the loss of TB

patients.

#### 6. Scientific Meetings, Workshops, webinars, and training events

#### January

- Form 18 20 January, Jennifer Hughes attended a three-day course presented by the National Clinical Advisory Committee DR-TB Conference. The focus of the course was to review the results of recent RR-TB study findings (BPal, BEAT Tuberculosis and PRACTEAL) and to discuss possible updates to the national RR-TB treatment guidelines.
- The first VERDI General Assembly was held from 26 28 January and Marieke van der Zalm attended.

#### February

- Lario Viljoen and Graeme Hoddinott attended the Change Management Workshop, presented by the Stellenbosch University Business School, at Devon Valley Hotel from 23-24 February 2022.
- Anneke Hesseling participated in the World Health Organisation Drug Resistant TB
   Guideline Development Group meeting from 21 25 February.

#### March

- Lario Viljoen, Dillon Wademan, Zara Kavaliratos and Dzunisani Baloyi attended The
   Fundamentals of Grant Proposal Writing workshop run by DAIDS from 1-2 March
- The webinar for the IMPAC19TB, study implemented in BRICS countries, was held from 10
   11 March. Several team members from the DTTC attended and Sue-Ann Meehan,
   Graeme Hoddinott and Hanlie Myburgh presented.
- From 10 12 March the TB Trials Consortium (TBTC) Spring Meeting was held virtually.
- Anneke Hesseling attended the 14th SIOP Africa Continental Congress in Kampala, Uganda from 16 – 18 March.

- From 29 March 1 April, the World Conference on Pharmacometrics (WCoP) was held at Century City Conference Centre, in Cape Town. Several team members from the DTTC attended.
- From 27 March to 10 June Sue-Ann Meehan attended the Introduction to Global health short course at Stellenbosch University.

#### April

- 19 20 April. Online Paediatric CXR reading training for the Stool4TB Study start-up –
   Megan Palmer & Marieke van der Zalm
- 21 April. NSP Technical Team inception meeting. Karen du Preez organised an internal meeting with a core-group for further input.

#### May

- 10 12 May. Virtual TBTC Spring Meeting. Study 35 updates were presented, and Anneke
   Hesseling presented on the new study called Radiant Kids.
- 05 08 May. Marieke van der Zalm attended the South African Thoracic Society Congress,
   in Cape Town.
- 12 May. Webinar. The Union's Sub-Saharan Africa Regional Child and Adolescent TB Centre of Excellence: The role of chest-X-ray in diagnosis, treatment, and prevention of TB in children and adolescents: the old and the new Megan Palmer, James Seddon, Simon Schaaf presented.
- 13 May. Sue Purchase presented a Life Support Workshop and several members attended.
- 23 May. South African TB think tank meeting. Anneke Hesseling and Graeme Hoddinott attended.
- 18 May. Final contact session of the 6-week Women in leadership course at Stellenbosch University Business School. Karen du Preez and Marieke van der Zalm attended.
- 19 May. Building your research career leadership and creativity Workshop by Prof Eugene
   Cloete Karen du Preez and Marieke van der Zalm attended.

June

- 14 June. Jenny Hughes and Anneke Hesseling presented training on the diagnosis and management of DR-TB at a national level during an online webinar.
- 03 June. James Seddon gave a talk this morning to the Latvia WHO Collaborating Centre virtually with the title: Recent Developments in the Treatment of Tuberculosis in Children.

July

4, 18 July. IPC Training module: Roles and structure of IPC

#### August

- 1 August. IPC training: Micro-organisms of relevance to IPC
- 15 August. IPC training: Risk management
- 29 August. IPC training: Hand Hygiene
- 11 August. SAMRC TB Research and Innovation Stakeholder Consultation Meeting –
  Anneke Hesseling attended and presented on behalf of DTTC. The meeting was about what
  projects have been funded to date and on the BRICS COVID-19 study and TB CHAMP
  including the work that Marieke van der Zalm is busy with on Pathogens.
- 11 August. Understanding the New NIH Data Management and Sharing (DMS) Policy workshop. Vikesh Naidoo attended.
- 17 August. WHO Webinar: Long term outcomes in children with COVID-19 illness in Cape
   Town, South Africa. Isabelle de Allende
- 21 30 August. European Health Psychology Society Conference. Michaile Anthony attended.
- 31 August 1 September. 66th Annual Academic Day (AAD)
- 31 August. Team effectiveness workshop BCH team

#### September

1 – 2 September. TB Meningitis meeting in Oxford. James Seddon attending

- 7 8 September. Report international meeting: biomarker work on TB. James Seddon is attending and presenting at this meeting on Biomarkers in children.
- 12 September. IPC training: Environmental Cleaning, Waste Management
- 12 16 September. Childhood TB training presented by the Desmond Tutu TB Centre at Goudini.
- Karen du Preez attended the Think Tank meeting prior to the South African TB Conference in Durban.
- 13 16 September. Several members from the DTTC attended the South African TB Conference in Durban.
- 26 September. IPC training: Tuberculosis infection prevention and control
- 15 23 September. Anneke Hesseling attended the regional RR-TB training in Singapore.
- 25 27 September. The AFRO Regional WHO meeting was held in Zambia. Anneke Hesseling, Gwynneth Hendricks, Ciara Goslett, Tony Garcia-Prats, and James Seddon attended.

#### October

- 01 23 October. Eric McCollum travelled to Baltimore, USA.
- 4 7 October. Team members from the Inhale team travelled to Mozambique for training on respiratory sampling, TremoFlo and other operational aspects,
- 11 October. Webinar: Clinical Case Discussions Union with Dr Steve Graham
- 25 October. WHO operational guidance on the management of TB in children and adolescents: a game changer to save young lives. Course organized as part of the 53rd Union World Conference on Lung Health.
  - The rapidly evolving landscape of RR-TB treatment and improving access for children (Anneke Hesseling)

- Assessing radiological disease severity of TB using CXR in children and adolescents (Megan Palmer)
- 31 October. 'Loss to follow up' TB learning exchange meeting.

#### November

- 10 November. 6<sup>th</sup> Western Cape Annual Human Research Ethics Workshop: The relationship between health and social science research and how to bridge the gap. Graeme Hoddinott
- 10 November. PHOENIx site training on diagnosis of MDR-TB in child contacts and CXR reading. Anneke Hesseling and Megan Palmer
- 14 November. Basic Life Support training presented by Dr Susan Purchase
- 21 November. Union maternal and Child Working Group meeting. Sue-Ann Meehan attended.
- 21 22 November. ITBM R01 (iThemba) kick off meeting. James Seddon
- 29 November. Annual meeting of the Child and Adolescent TB working group.

#### December

• 6 - 9 December. World Science Forum at the CTICC. Graeme Hoddinott was invited through his ARISE fellowship.

#### Ongoing 2022

- DTTC virtual paediatric team meetings are held every Friday throughout the year.
- DTTC scientific meetings and TB clinical forums occur on a regular basis throughout the year on a virtual platform.

## **TB Clinical Forum**

Date	Presenter	Topic	
11 Feb.	Ranks Lehloenya	Management of CADR associated TB and ART drugs	
11 March	Veronique De Jager (TASK)	Adult DSTB and RR-TB treatment trials update	
8 Apr.	Prof Warren Farzana Ismail (NCID)	INH Monoresistance-results from an EC Study Update on TB Diagnostics and Limitations of current diagnostic tools	
13 May	Megan Palmer Simon Schaaf James Seddon Pierre Goussard	Practical Paediatric Chest X-ray training	
10 June	Marieke Van Der Zalm Brian Allwood	Post TB Lung disease and Long COVID-19 syndrome in adults and children	
8 July	<ul> <li>Integrating mental health into routine antenatal care (The ASSET Project – Prof Crick Lund (Alan Fisher Institute for Public Mental Health)</li> <li>Early findings from a pilot project to integrate Mental Health Screening into routine PHC services in the Cape Metro. Dr Roslyn Lutaaya (CCT)</li> </ul>		
12 Aug	<ul> <li>Adult TB/ HIV updates. Graham Meintjes (UCT)</li> <li>Paediatric TB/ HIV update. Helena Rabie (SUN)</li> </ul>		
9 Sept	Ali Esmail (UCT)	<ul> <li>NTM-Clinical Approach to Diagnosis and management for the PHC Clinician</li> <li>Management of non-resolving pleural effusions</li> </ul>	
14 Oct	Anneke Hesseling (DTTC)	Update on Paediatric TB Treatment Trials.	
18 Nov	Anneke Hesseling (DTTC) Karen du Preez (DTTC)	Highlights on Paediatric Trials Plenary update on Paediatric TB globally in the South African context	

# • DTTC Scientific Meetings

Date	Presenter	Topic	
2 Feb.	Theme: Opening and MMed Research Mini-Symposium		
	Chair: Prof R. Van Toorn		
	Speakers and Topics:		
	1. R. Van Toorn: Opening		
	2. R. Van Toorn: Paediatric MMed Past and Present		
	3. S. Kerswill: MMed, A Registrar's Experience		
	4. K. Moxley: MMed Research Support and Training		
	5. B. Pretorius: Insights into HREC		
3 Mar.	Lario Viljoen	A proposal for the development of accurate and reliable method tools to document sexual partnerships and sex acts among people in high-risk HIV settings (The MatCHes study)	
17 Mar.	Dillon Wademan	Towards building a conceptual framework for determining the acceptability and uptake of tuberculosis treatment among children, adolescents, and their caregivers	
6 April	Chair: Dr Noor Parker  NM Parker; MM Barday: The PICU daily ward round  L Mfingwana: AKI in PICUE109  A Da Costa: Difficult Conversations with Parents and Children		
7 Apr.	Louvina van der Laan	Pharmacokinetics and dose optimization strategies of para-amino salicylic acid in children with rifampicin-resistant tuberculosis	
21 Apr.	Practice-run for the ESPID 2022 conference: Carla McKenzie: Recurrent TB in a cohort with suspected pulmonary TB / a Paradoxical case of missed resistance Isabelle Allende: Long-term impact of SARS-CoV-2 infection in children presenting to Tygerberg hospital during the COVID-19 pandemic in Cape Town, South Africa / "Asthmatic" wheeze in a young child? A clinical case presentation.		
28 Apr.	Kenneth Gunasekera	Spatial and prediction models for addressing challenges in paediatric tuberculosis control and care	
5 May	Abenathi Mcinziba	South African Children, Adolescents, and their Caregivers' TB Preventive Therapy Preferences	

26 May	Caryn Upton	TB drugs in CSF
09 June	Joanie Duvenhage	Hepatitis in children on RR-TB Therapy incidence, causes and outcome
14 June	Dr Steve Graham (International Visitor),	Focusses on the Range of Challenges in the Asia- Pacific Region,
7 July	Peter Donald	The infecting dose of mycobacteria in TB
21 July	Marlo Moller	Connections between Ancestry, Genes and Infectious Diseases
4 Aug	Elizna Maasdorp	Tuberculosis Bioinformatics
18 Aug	Cheryl Day	The effect of HIV exposure and infection on immunity to TB in children
22 Sept	Peter Donald	The infecting dose of mycobacteria in TB
13 Oct	Mark Cotton	IMPAACT 2039

# • Grants and Funding

Grant	Title	PI/ recipient
National Institute of Health Research (NIHR)	NIHR Post-TB CARE (Centre for Assessment and Research Excellence)	Rein Houben, Brian Allwood (with Graeme Hoddinott and others external)
British Academy	Good water, sanitation and hygiene service delivery for and with adolescents and young people in sub-Saharan African cities to build better futures and nurture hope.	Graeme Hoddinott
Scientific travel grant (Stellenbosch University)	Travel grant to attend the ESPID (European Society of Paediatric Infectious Disease) conference in Athena, Greece	Carla McKenzie and Isabelle de Allende
Scientific travel grant (Stellenbosch University)	Travel grant to attend the EHPS (European Health Psychology Society) conference in Bratislava, Slovakia	Michaile Anthony
ARISE Fellowship	OASIS	Graeme Hoddinott

ECRF (Stellenbosch University)	Developing an accurate and reliable method tool to document sexual partnerships and sex acts among people in high-risk HIV settings (MAtcHes study)	Lario Viljoen
SAMRC funding for hosting a national or international conference	Childhood TB training course.	Grayson Lamore
R01	TB meningitis and understanding the biology on TB meningitis better has been funded for 5-years.	James Seddon
Bill and Melinda Gates Foundation (through The Health Foundation of South Africa)	'Scaling Data use to Improve Patient Care': A Knowledge, Attitudes, and Practices Survey using the Technology Acceptance Model (ScIP KAPS Study)	Lario Viljoen

### 7. Visitors at the DTTC

### 2022 (Quarter 1)

- March April: TBTC, Elisa Lopez, Rada Savic (WCOP)
- March: JHU Pediatric residents Larry Gersz; Michael Rose.
- March April: Rene Raad a student at LSHTM and one of her supervisors, Prof Martin Gorsky
- March: Jay Achar, Karolinska Institute

### 2022 (Quarter 2)

- May: Kristy Sessions from JHU is visiting with Eric McCullom at DTTC. She is a research fellow with Eric in the JHU Global Program for Paediatric Respiratory Sciences.
- May: Virginia Bond from Zambart and the London School of Hygiene and Tropical Medicine visited Lario Viljoen, Graeme Hoddinott and Melissa Nel for a writing workshop.
- June: Steve Graham visited the DTTC.

### 2022 (Quarter 3)

- 28 July. Prof Caroline Knowles, the programme director employed by British Academy for the umbrella funding mechanism for the RINSS and Good Cities projects visited the DTTC and the Kuilsriver site.
- 29 July. Prof Mumbengegwi, head of multidisciplinary research, Namibia University
- 15 22 August. Prof Cheryl Day, Emory University.
- 12 August. Chetan Seshadri and Helen Chu, division of allergy & infectious diseases,
   Washington University
- 15 25 August. Dr. Shubhada Hooli, Texas Children's Hospital, Paediatric Emergency
   Medicine visiting the DTTC
- 6 8 September. Prof Amita Gupta, Chief Division ID, Johns Hopkins
- 9 16 September. Prof Tony Garcia-Pratts is visiting BCH, DTTC and will join the Childhood
   TB course
- 10 August. Dr Nyasha Bakare, Janssen Pharmaceuticals. Anneke Hesseling, Megan Palmer, and Simon Schaaf hosted her at BCH for capacity building.
- 12 16 September. Sabine Verkuil from WHO is visiting Cape Town and will attend the Childhood training course.
- 1 18 August. Dr Muhammad Osman
- 22 26 August: Prof. Tim Cressy, Chiang Mai University, Thailand clinical pharmacologist working with Adrie Bekker on Petite2

### 2022 (Quarter 4)

- 17 21 October. Anne-Marie Demers.
- 07 14 November. Lilly Verhagen
- 02 December. Leo Martinez visited Karen, James and met briefly with Anneke at DTTC
- December. Holly Shu, an epidemiologist from Johns' Hopkins, visited with Eric McCollum and team.

### 8. Travel

- 7 11 February. Sue-Ann Meehan and Nosivuyile Vanqa travelled to KwaZulu Natal for LINKEDup work.
- 15 19 March. Anneke Hesseling traveling to Kampala, Uganda
- 28 March 1 April. Eric Mccollum travelled to Lesotho
- 13 April 02 May. Eric McCullom travelled to the USA.
- 23 26 May. Anneke Hesseling- Geneva, Switzerland- 15th Anniversary of UNITAID.
- 05 15 May. Carla McKenzie and Isabelle Allende. Athens, Greece. ESPID Conference.
- 05 08 June. Nomtha-Bell Mandla attended the HPTN annual meeting in Washington to present her study completed for the HPTN International Scholars Programme.
   Predictors of participant retention in a community-based HIV prevention cohort.
   Mentors Peter Bock (DTTC) Ayana Moore (FHI).
- 07 12 June. Anneke Hesseling, Marieke van der Zalm and James Seddon. Maputo.
- 27 June 01 July. IMPAACT Meeting. Washington DC Simon Schaaf, Anneke Hesseling, Gwynneth Hendricks, Petra de Koker, Jennie Slabber, Godfrey Tabatha
- 28 30 June. VERDI Project Meeting. Padua, Italy Marieke van der Zalm
- 28 01 July. VERDI Meeting. Padua, Italy. Marieke van der Zalm attended.
- 02 July. NCAC Meeting. Johannesburg. Jenny Hughes attended.
- August. Graeme Hoddinott travelled to Windhoek.
- Sue Purchase visited the KZN Think site as part of TB CHAMP study.
- 30 July 19 August. James Seddon traveling to UK in August 2022 for clinical work.
- 21 30 August. Bratislava Slovakia Michaile Anthony for the ESPID conference.
- 23 25 September. Zambia, AFRO Regional WHO meeting
- 13 18 September: Singapore. Anneke Hesseling.
- 31 October 04 November. Namibia. Graeme Hoddinott; James Seddon.
- 05 7 December. Vatican, Italy. High-level WHO meeting. Anneke Hesseling.
- 05 December 16 January. Sabbatical leave. Anneke Hesseling.

9. Community Advisory Board (CAB) and Community Engagement (CE) activities

**Operations** 

Monthly meetings: 10 were held with Principal Investigators presenting 14 study updates

and led discussions with CAB members

Letters of support were requested and issued for several grant applications

Training and capacity building workshops held: understanding the research process, the

funders and the Networks, clinical trials, protocol review training, the informed consent

process, understanding TB and HIV, (prevention/diagnostics and treatment), ethics, socio-

behavioural sciences, regulatory training, advocacy and basic life support skills training

Recruitment: 4 new members were appointed

Stellenbosch University Health Research Ethics Committee (SU-HREC) service: 5 members

have undergone intensive training and are serving on HREC 1 & 2

Volunteer in-service training: 1 CAB member completed 6 months admin training (2022)

and 1 CAB member is currently in training since February – November 2023 at DTTC offices

and 3 members assisted with admin and technical support at the Goudini Child TB Training

Course.

Highlights 2022

• Awards: CAB Member of the Year 2022 was awarded to Lulutho Tyityi.

Advocacy: Ciara Goslett delivered a "call to action" at the WHO World TB Day 2022 and

shared her story at the WHO Africa Regional Meeting in Lusaka.

Scholarships: 2 for International AIDS Society (IAS); 5 for the Union Meeting

7th SA TB Conference Durban: 4 members attended.

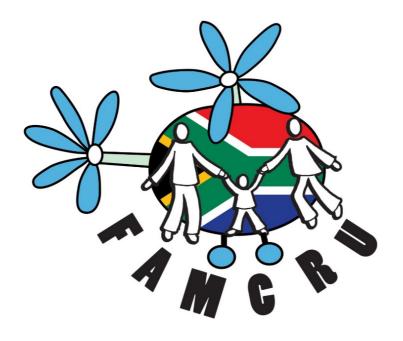
- Network Annual Meetings: ACTG (hybrid) 1 member attended and presented and 2 attended virtually / IMPAACT (hybrid) CLO attended and 1 member attended virtually;
   HPTN (virtual) 6 members attended/ TBTC (virtual) -1 member and CLO attended and presented / Union Meeting 8 12 members attended virtually over 4 days.
- Community Partners: The CLO and 1 CAB member were elected to serve on HANC CP.
- Grant and publication: CAB secured a grant from the TBTC-CRAG for local community engagement and CAB members contributed to a Union publication submission.

# 10. Media

# **Online Media**

Date	Site	Link	Title
24/03/2022	Stellenbosch University	http://www.sun.ac.za/english/ Lists/news/DispForm.aspx? ID=8997	World TB Day: We need to close the policy-practice gap for SA's children, adolescents with TB (Featuring Marieke van der Zalm and Karen du Preez)
24/03/2022	News 24	https://www.news24.com/ health24/medical/tuberculosis/ opinion-we-need-to-close-the- policy-practice-gap-for-sas- children-and-adolescents-with- tb-20220324	World TB Day: We need to close the policy-practice gap for SA's children, adolescents with TB (Featuring Marieke van der Zalm and Karen du Preez)
21/03/2022	UN/WHO Press conference	https://www.youtube.com/ watch?v=yKmQDlanTuo	Ciara Goslett, member of the BENEFIT Kids CAB
24/03/2022	WHO World TB Day: Online Talk Show	https://www.youtube.com/ watch? v=MzucLTSIJGg&t=1722s	Ciara Goslett, member of the BENEFIT Kids CAB
05/05/2022	IS Global	https://www.isglobal.org/en/-/ un-nuevo-estudio-arroja- informacion-valiosa-para- mejorar-el-tratamiento- antituberculoso-en-la- poblacion-infantil	New Study Provides Valuable Information for Improving Anti-TB Treatment in Children (Featuring Elisa López-Varela)
21/07/2022	Daily Maverick	https:// www.dailymaverick.co.za/ article/2022-07-21-experts- weigh-in-on-the-potential-of- ultrasound-for-diagnosing-tb- in-kids/	Experts weigh in on the potential of ultrasound for diagnosing TB in kids
19/09/2022	News 24	https://www.news24.com/ news24/health/is-the-future- of-sas-tb-plans-locked-up-in- the-mysterious-minds-of- teens-20220919	Is the future of SA's TB plans locked up in the mysterious minds of teens? (Graeme Hoddinott)

16/09/2022	Spotlight	https://allafrica.com/stories/ 202209160397.html	South Africa: TB Treatment to Be Shortened to 4 Months for Most Kids
01/12/2022	News24	https://www.news24.com/ news24/Health/if-the-price-is- right-the-anti-hiv-jab-could-be- in-sa-clinics-by- august-2023-20221201	If the price is right: The anti- HIV jab could be in SA clinics by August 2023



# **FAMILY CENTRE for RESEARCH with UBUNTU**

**Annual Report 2022** 

**FAMILY CENTRE for RESEARCH with UBUNTU** 

In 2022, FAMCRU underwent a change of leadership, with Shaun Barnabas being appointed as the new Director, with Professor Mark Cotton retiring from this position. Professor Cotton continues Pl'ship on a few clinical trials and his work within the IMPAACT HIV CURE committee, as protocol chair of an upcoming trial investigating paediatric HIV vaccine and broadly neutralising antibodies.

The FAMCRU Buddies group were active during 2022, with 140 adolescents attending Saturday peer support workshops moderated and led by the FAMCRU Social Worker Mrs Thembi Boyana. The discussions addressed issues including Substance use, Depression, friends and peer pressure, Prep and PEP and HIV and the treatment thereof. The adolescents were encouraged to think about their future, set goals and identify ways to reach those goals with the #I have a dream campaign run in the group.

Mrs Boyana also utilised this platform to encourage the adolescents to express their feelings by writing letters addressing HIV, the doctors, their parents and themselves. This group, made up largely of the CHER cohort, held a wonderful celebratory ceremony, rewarding those who have maintained viral suppression and adherence to ART over the course of the last 15 years. This was also an opportunity for the adolescents and their parents to express gratitude and well wishes to Prof Cotton for his key role and leadership within FAMCRU.

The FAMCRU CAB held monthly meetings during the year, topics included: an update on the changed transport remuneration structure at FAMCRU according to the changes suggested by SAHPRA, study updates and information regarding new studies and training.

Prof Blanche Pretorius – Head of Stellenbosch Health Research Ethics Committee shared with the CAB the role of the Ethics committee in research and how to become a member of the ethics committee. Subsequently, two CAB members have applied to join the Ethics Committee, one of whom, has been accepted and has started training.

Francis Petersen, the FAMCRU CAB chairlady, attended the Annual ACTG annual meeting as GCAB representative, June 2022. Here, she was awarded the Sharon Maxwell Award for Community Engagement Excellence.

In total, FAMCRU conducted 35 clinical trials and research studies across all sites, with 2 of those studies exclusively at FAMCRU Worcester and 1 at both Tygerberg and Worcester sites.

# FAMCRU Tygerberg, Michael Mapongwana and Kraaifontein

- The team initiated 4 new trials, contributing 367 new participants with a 95% screening success rate
- A total of 2366 scheduled and 868 unscheduled visits were conducted

# **FAMCRU Worcester**

• FAMCRU Worcester initiated a COVID-19 vaccine trial in which 272 participants were enrolled from 397 screening performed.

• Scheduled visits totalled 1592 while unscheduled visits (from 1 study alone) contributed 295 to the total visits conducted.

Trials and studies and FAMCRU include maternal, adult and paediatric participants. And are conducted within the following networks and categories:

- US National Institute of Health funded IMPAACT (International Maternal Pediatric Adolescent AIDS Clinical Trials Group) and ACTG (AIDS Clinical Trials Group) networks,
- the European PENTA (Paediatric European Network for Treatment of AIDS) network,
- the CoVPN (COVID Vaccine Prevention Network),
- pharmaceutical funded trials
- investigator driven trials.

## FAMCRU HIGHLIGHTS – 2022

- Approval of protocol development for IMPAACT 2039: Phase I/II Study of the Safety, Immunogenicity, and Efficacy of HIVconsvX Vaccines and Broadly Neutralizing Antibodies in Children Living with HIV
  - > Protocol chair: Mark Cotton
- Awarded a Paediatric Adolescent Virus Eradication (PAVE) CNS supplement \$250,000 to investigate CSF for HIV-1 presence (A US National Institute of Health, Martin Delaney Collaboration grant)
- The International Workshop on HIV and Pediatrics in Montreal, Canada (27 July – 28 July 2022):
  - > Samantha Fry poster presentation: "Morbidity and Mortality in early diagnosed and treated children living with HIV in Cape Town"
  - > Shalena Naidoo oral presentation: "A Longitudinal Assessment of the Impact of Antiretroviral Therapy and HIV-1 associated Inflammation on Neurocognitive Outcomes in Perinatally Infected (PHIV) Children in South Africa"
  - > Samantha Fry and Shalena Naidoo attended virtually
  - > Barbara Laughton attended in person
- The AIDS 2022 conference in Montreal Canada (29 July 02 August 2022):
  - ➤ Barbara Laughton, speaker and panellist at the 8<sup>th</sup> Workshop on Children and Adolescents with perinatal HIV exposure: "Research Data"
  - > Shalena Naidoo oral presentation: "A Longitudinal Assessment of the Impact of Antiretroviral Therapy and HIV-1 associated Inflammation on Neurocognitive Outcomes in Perinatally Infected (PHIV) Children in South Africa"
    - > Barbara Laughton attended in person
    - > Shalena Naidoo attended virtually
- Annual International Maternal Pediatric Adolescent AIDS Clinical Trial Network (IMPAACT) meeting in Washington DC, United States (28 June – 01 July 2022):

- ➤ Marije Van Schalkwyk, Mark Cotton, Adrie Bekker and Samantha Fry attended in person
- >> Samantha Fry presented: "IMPAACT 2028 Long-Term Clinical, Immunologic, and Virologic Profiles of Children who Received Early Treatment for HIV" at the HIV CURE meeting
- Stellenbosch University Annual Academic Year Day (31 August 2022 – 01 September 2022)
  - ➤ Samantha Fry poster presentation: "Morbidity and Mortality in early diagnosed and treated children living with HIV in Cape Town"
  - > Sharon Kruger presented a poster at the SU Annual Academic year day 2022 "South African adolescent views on COVID-19
- Professors Mark Cotton and Helena Rabie received acknowledgement of excellence for their number of publications at the Stellenbosch University Research Excellence Award ceremony, August 2022
- FAMCRU held a Women's Day event for staff on 11 August 2022:
  - ➤ Speaker: Dr Jill Ryan Coordinator: Gender Non-violence from the Equality Unit -Learning and Teaching
  - > Title of keynote talk: GBV and trauma-informed response
- NexT generation traininG in HIV Research: Immunity in the 1st 1000 days in mother-infant dyadS" (TIGRIS) in Stellenbosch (2 4 September)
   Mark Cotton presented on HIV Exposed Uninfected Infants. Barbara Laughton attended and presented on experiences in conducting CMV tests in research. Helena Rabie attended in person. Shaun Barnabas & Samantha Fry attended virtually

# Academic Achievements, Courses attended, Training conducted

- Lauren Abrahams (data capturer) completed her Bachelors degree, majoring in Psychology and Sociology.
- Caro-lee Saal (investigator) completed a Masters in Epidemiology (with distinction)
- Kaylee van Wyhe (neuro-HIV researcher) completed her PhD <u>Cognitive and Behaviour Outcomes from the CHER Trial at 7 and 9 years of age.</u>
   Publication from her PhD selected as one of the critical papers in the Journal of the International AIDS Society (JIAS) virtual issue launch marking International Children's Day, theme: A Better
- Barbara Laughton (neurodevelopmental specialist) completed a Women in Leadership course through Stellenbosch University Business School Executive Development
- Sharon Kruger was awarded a fellowship to attend the Advocacy-for-Cure Academy hosted by the International AIDS Society (IAS) and the AIDS Vaccine Advocacy Coalition (AVAC)

Future for Every Child.

- QC/QA staff training conducted by the Pharmaceutical Product Development (PPD) organization.
- Protocol specific training, Good Clinical Practice (GCP) and Human Subjects Protection (HSP) as required by staff.

## **International Guests**

- Jennifer Jao, MD, MPH <u>Protocol Chair IMPAACT P1115</u>
   Northwestern University Feinberg School of Medicine
   Ann & Robert H Lurie Children's Hospital of Chicago
- ViiV delegation including the CEO and management
- Pim Brouwers Deputy Director of the Division of AIDS Research (DAIDS)
- Lori Scott-Sheldon Chief of the Data Science and Emerging Methodologies Program in HIV Division of AIDS Research
- Yvonne Wangui Machira Director for Socio-Behavioural Research (SBR) at the International AIDS Vaccine Initiative

### **Research Report**

### **FAMCRU: 2022**

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