

# EXTRAMURAL UNITS:

FEEDBACK TO ANNUAL REPORT 2019/20

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## **SOUTH AFRICAN MEDICAL RESEARCH COUNCIL**

The South African Medical Research Council (SAMRC) was established in 1969 to conduct and fund health research, health innovation, development and research translation. The SAMRC focuses on the top ten causes of mortality, co-morbidities, disability and associated risk factors. The scope of research includes laboratory investigations, pre-clinical and clinical research, and public health studies.

The mandate of the SAMRC is legislated in terms of Act 58, 1991 (as amended): 'the objects of the SAMRC are, through research, development and technology transfer, to promote the improvement of the health and quality of life of the population of the Republic, and to perform such functions as may be assigned to the SAMRC by or under this Act'.

### **VISION**

Building a healthy nation through research, innovation and transformation

### **MISSION**

To advance the nation's health and quality of life and address inequity by conducting and funding relevant and responsive health research, capacity development, innovation and research translation.

### **SAMRC VALUES**

The SAMRC is guided by the following values that form the foundation of our organisations:

**Pioneering:** We push the boundaries between the known and the unknown to further our knowledge of human health within the precepts of responsible (ethical) conduct of research.

**Partnering:** We celebrate the capacity of collective minds towards a common goal. We build partnerships with many stakeholders at local, national, regional and international levels to exchange ideas, advances shared goals, optimize use of resources to minimise duplication, and leverage funding.

**Excellence:** We strive for distinction in everything we do by developing highly skilled personnel, capacity building and transformation, and conducting research of high value.

**Respect:** We value and respect our communities, participants, researchers and funders.

**Integrity:** We commit to transparency, accountability, open communication and ethical conduct.

**Citizenship:** We demonstrate responsibility to the community, nation and the World.

# GOALS

1

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Administer health research effectively and efficiently in South Africa

2

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Lead the generation of new knowledge and facilitate its translation into policies and practices to improve health

3

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Support innovation and technology development to improve health

4

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Build capacity for the long-term sustainability of the country's health research

5

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Translate new knowledge into policies and practices to improve health



# ABOUT THE EXTRAMURAL UNIT

SAMRC research units (both intramural research units [IMUs] and extramural research units [EMUs]) are the prime vehicles for delivering relevant and responsive health research outputs to address both national and international health issues. While IMUs focus their research activities on public health and major burdens of disease in the country, EMUs may, in addition, undertake research in strategic research areas to generate new knowledge and grow the next generation of health scientists for the country. EMUs are established in higher education institutions (mainly universities) and other research intensive organisations such as the National Health Laboratory Service. The need for EMUs was further emphasised in the Report on the Revitalisation of the SAMRC, where it was noted that the SAMRC should drive a new initiative to broaden and deepen its involvement in health research in South Africa.

The funding for the SAMRC EMUs represents a secure, discretionary, financial incentive which is approved in five-year cycles, up to a term limit of 15 years depending on satisfactory performance. It is expected that institutional support and co-funding and the other grants received by the Unit should exceed several-fold the amount invested by the SAMRC in the Unit.

In the 2019/20 FY, EMUs were measured against three of the five SAMRC strategic goals; goals 2, 3, 4.

This document details synthesised data from the Annual reports submitted by EMUs for the 2019/20 Financial Year and concludes with information showing some of the impact emanating from the EMU research efforts.



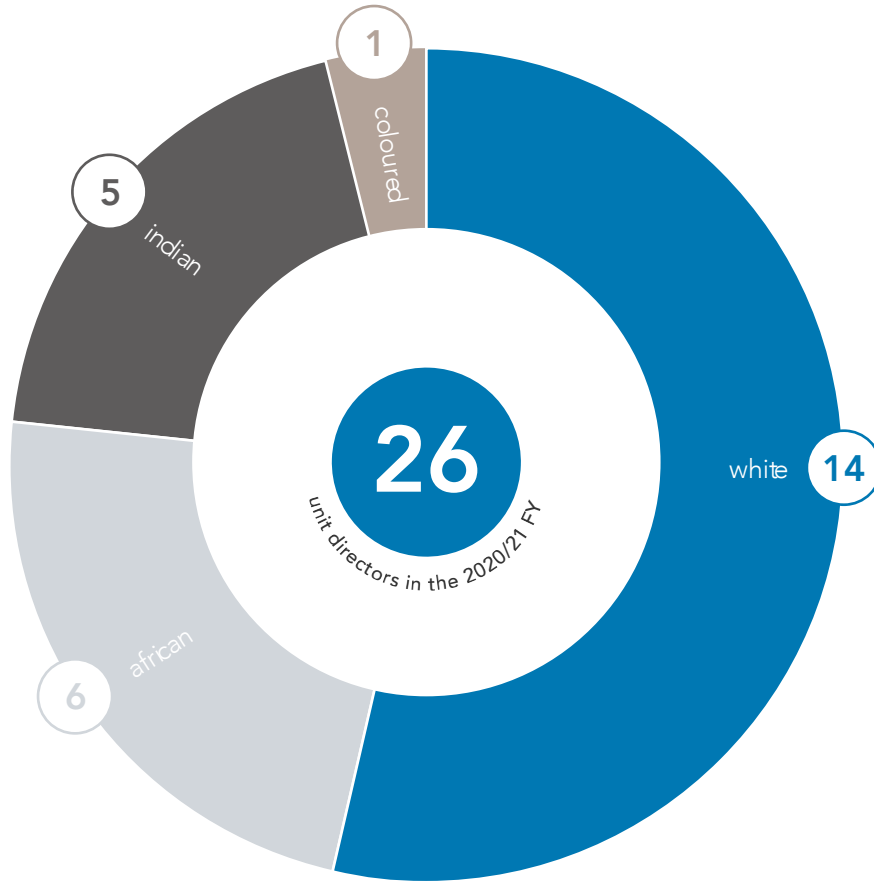
# SAMRC Extramural Research Units as at 1 April 2020

(listed alphabetically)

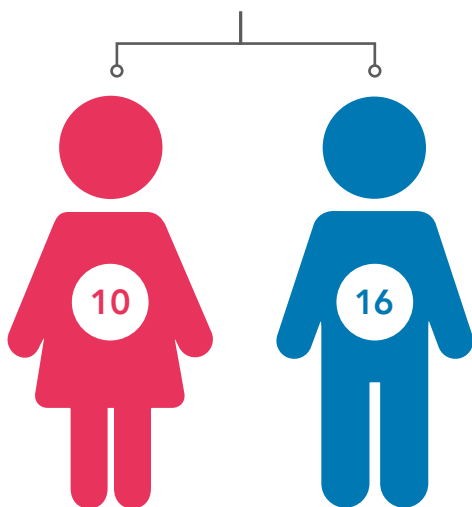
| SAMRC EXTRAMURAL UNITS   | UNIT DIRECTOR           | INSTITUTION                                   | DATE OF ESTABLISHMENT |
|--|-------------------------|---|-----------------------|
| Antibody Immunity  | Prof Lynn Morris        | University of the Witwatersrand               | 2019                  |
| Antiviral Gene Therapy   | Prof Patrick Arbuthnot  | University of the Witwatersrand               | 2015                  |
| Bioinformatics Capacity Development                                    | Prof Alan Christoffels  | South African National Biodiversity Institute | 2001                  |
| Cardiometabolic Health   | Prof Tandi Matsha       | Cape Peninsula University of Technology       | 2019                  |
| Centre for the Study of Antimicrobial Resistance                       | Prof Keertan Dheda      | University of Cape Town                       | 2018                  |
| Centre for Health Economics and Priority Setting                       | Prof Karen Hofman       | University of the Witwatersrand               | 2019                  |
| Child and Adolescent Lung Health                                       | Prof Heather Zar        | University of Cape Town                       | 2015                  |
| Development Pathways for Health  | Prof Shane Norris       | University of the Witwatersrand               | 2010                  |
| Drug Discovery and Development   | Prof Kelly Chibale      | University of Cape Town                       | 2007                  |
| Genomics of Brain Disorders  | Prof Soraya Seedat      | Stellenbosch University                       | 2019                  |
| Health Services to Systems   | Prof Helen Schneider    | University of Western Cape                    | 2015                  |
| Herbal Drugs   | Prof Alvaro Viljoen     | Tshwane University of Technology              | 2015                  |
| HIV-TB Pathogens and Treatment   | Prof Salim Karim        | CAPRISA                                       | 2015                  |
| Hypertension and Cardiovascular Disease                                | Prof Aletta Schutte     | North West University                         | 2015                  |
| Immunology of Infectious Disease                                       | Prof Frank Brombacher   | University of Cape Town                       | 2000                  |
| Masculinity and Health   | Prof Kopano Ratele      | University of South Africa                    | 2019                  |
| Maternal and Infant Health Care Strategies                             | Prof Robert Pattinson   | University of Pretoria                        | 1998                  |
| Microbial Water Quality Monitoring                                     | Prof Anthony Okoh       | University of Fort Hare                       | 2015                  |
| Molecular Mycobacteriology   | Prof Valerie Mizrahi    | University of Cape Town                       | 2000                  |
| Precision Prevention and Novel Drug Targets for HIV-Associated Cancers | Prof Zodwa Dlamini      | University of Pretoria                        | 2019                  |
| Risk and Resilience in Mental Disorders                                | Prof Dan Stein          | University of Cape Town                       | 2017                  |
| Rural Public Health and Health Transition                              | Prof Stephen Tollman    | University of the Witwatersrand               | 2003                  |
| Stem Cell Research and Therapy   | Prof Michael Pepper     | University of Pretoria                        | 2015                  |
| Unit for Precision and Genomic Medicine                                | Prof Rajkumar Ramesar   | University of Cape Town                       | 2018                  |
| Vaccine and Infectious Analytics                                       | Prof Shabir Madhi       | National Health Laboratory Services           | 2020                  |
| Wound and Keloid Scarring Translational                                | Prof Nonhlanhla Khumalo | University of Cape Town                       | 2019                  |

# PROFILE OF UNIT DIRECTORS

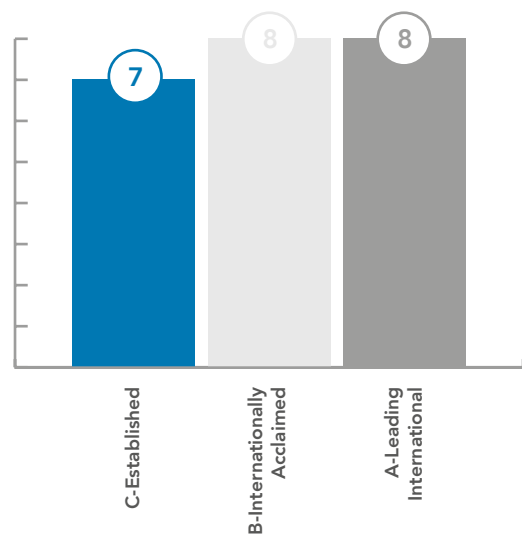
Of the **26 UDs**, **46%** are from **previously disadvantaged background**. The SAMRC is always working to find ways of increasing the number of researchers excluded in the past.



Towards the promotion of women in science, the number of **Female UDs** has increased from **24%** in **2014** to **39%** presently.

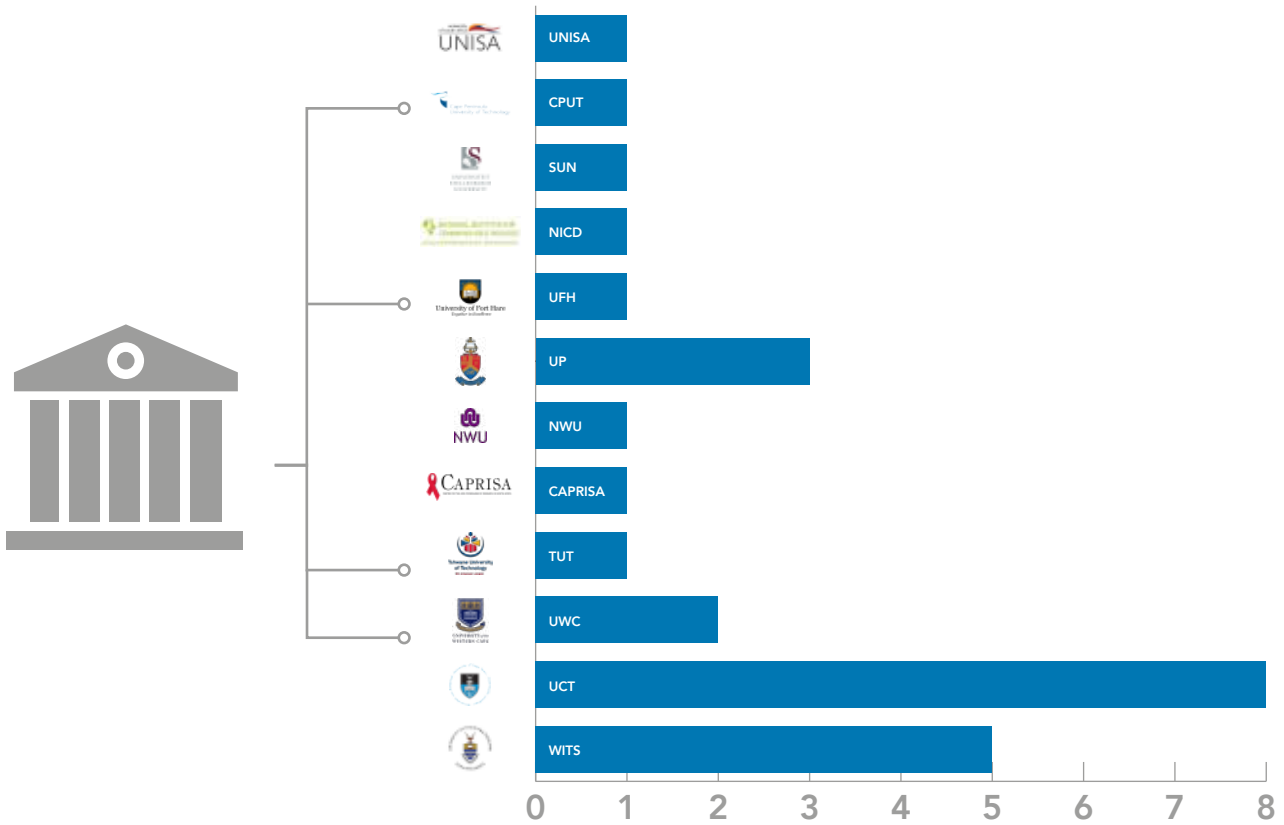


Most of the researchers are **NRF rated** which is an official **affirmation** and a national **recognition** of their **scientific stature** and **research expertise**.



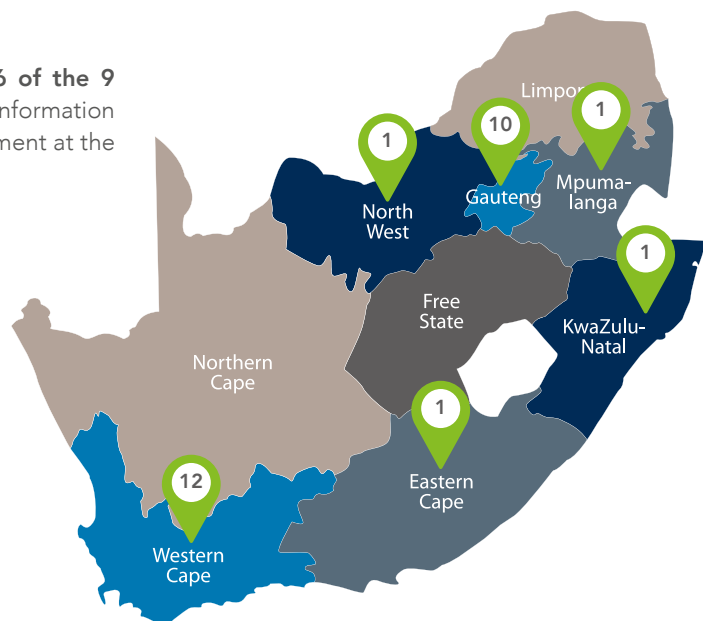
# PROFILE OF HOSTING INSTITUTIONS

The **SAMRC** is currently **represented** in **12 institutions** and is committed to the capacity development of **HDIs**; of the **12 institutions, 4 are HDIs**.



# EMU PROVINCIAL SPREAD

The **SAMRC Brand** is currently represented in **6 of the 9** provinces. EMUs represent windows of scientific information and economic drivers of socioeconomic development at the different provinces.

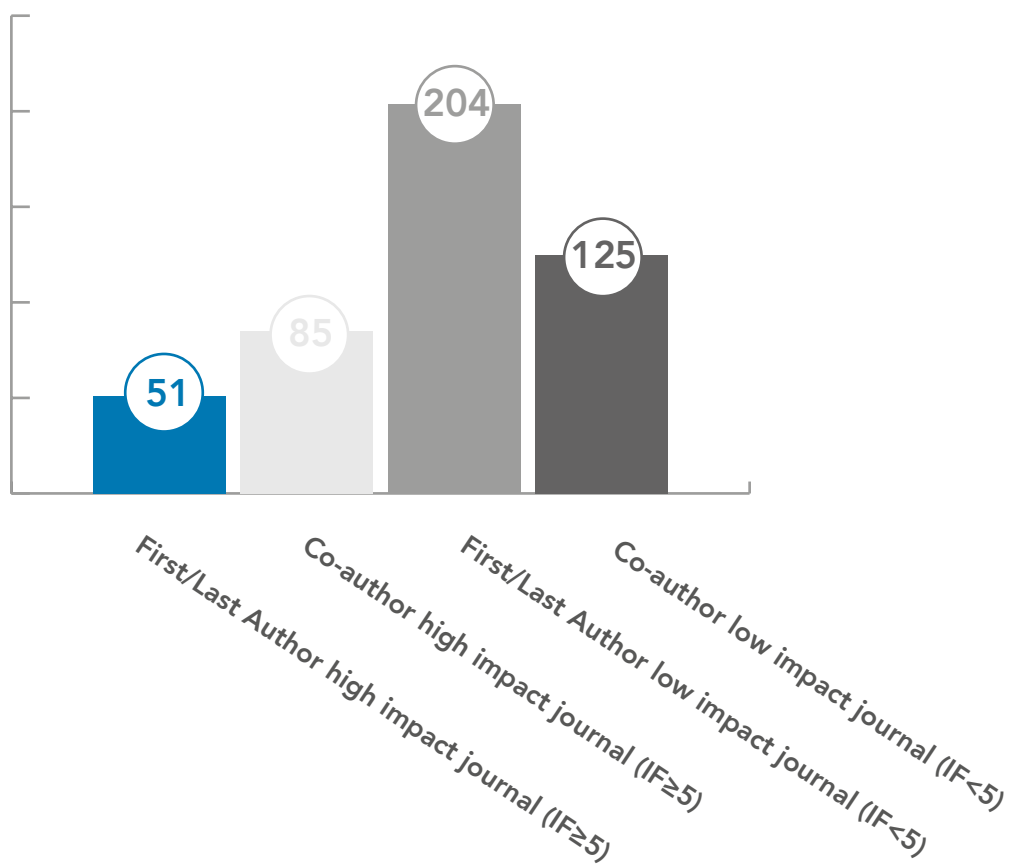


# RESEARCH OUTPUT



EMUs produced **465** peer-reviewed **publications** in **2018/19**; 50% of the total SAMRC research output.

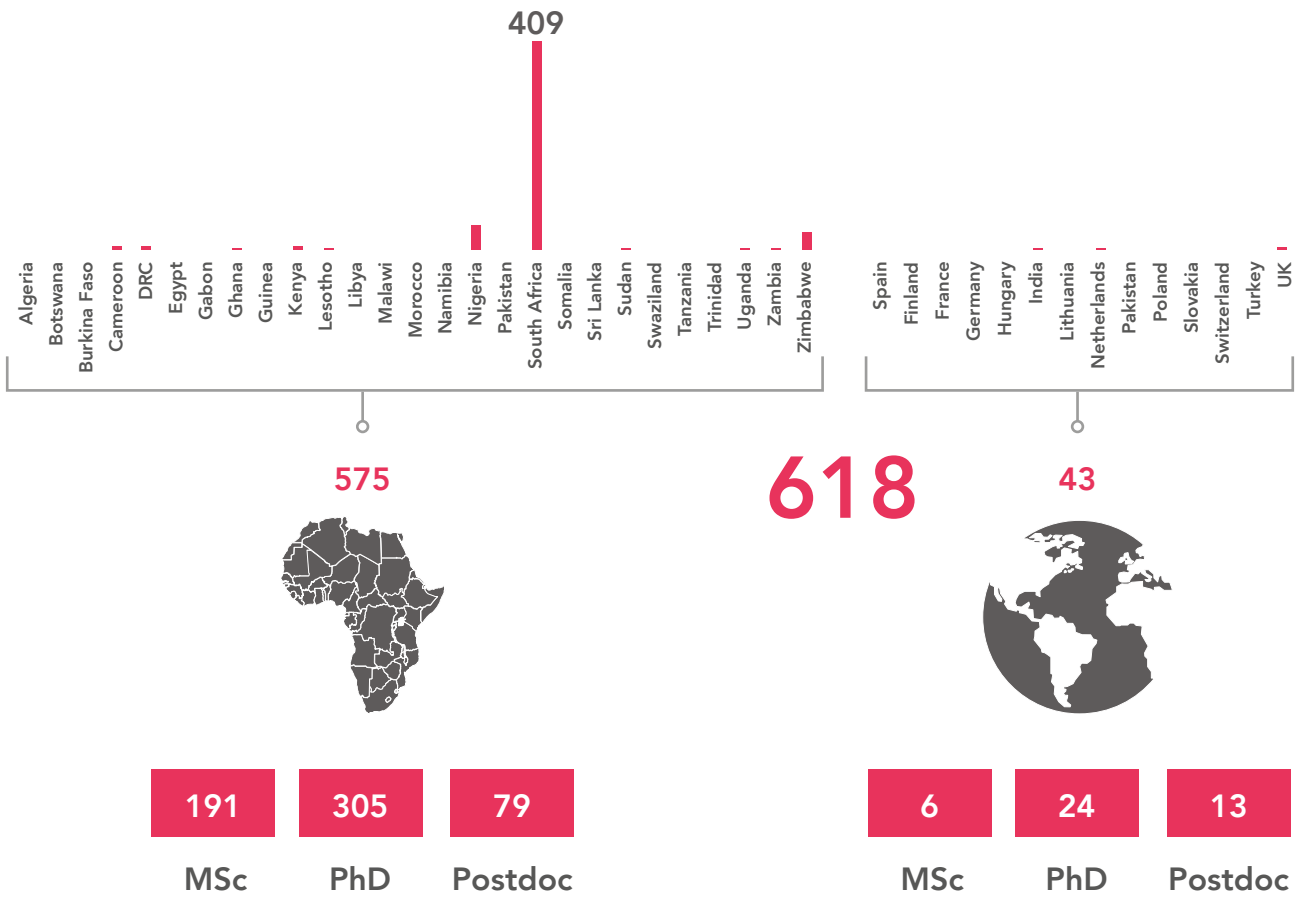
Of the **465** peer-reviewed publications from the EMUs, **55%** were first authored by researchers from the EMUs.





# CONTRIBUTION TO CAPACITY DEVELOPMENT

While the **training of SA students takes priority**, the training of students from outside SA prioritizes the capacity development of students from other African countries



EMUs have the discretion to use the funding received as per the needs of the EMU. This allows the EMUs to use a portion of the funding towards capacity development, which contributes to the development of future leaders in medical research, not only in SA, but also in other parts of Africa.

**101 students** were sponsored with EMU/SAMRC Funding; of the students from outside SA, priority is given to students from the rest of Africa

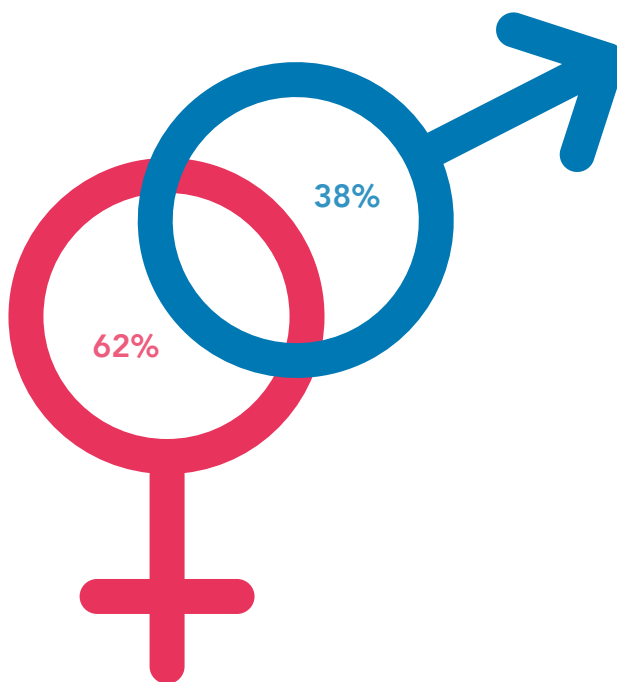


# OUTPUT OF CAPACITY DEVELOPMENT

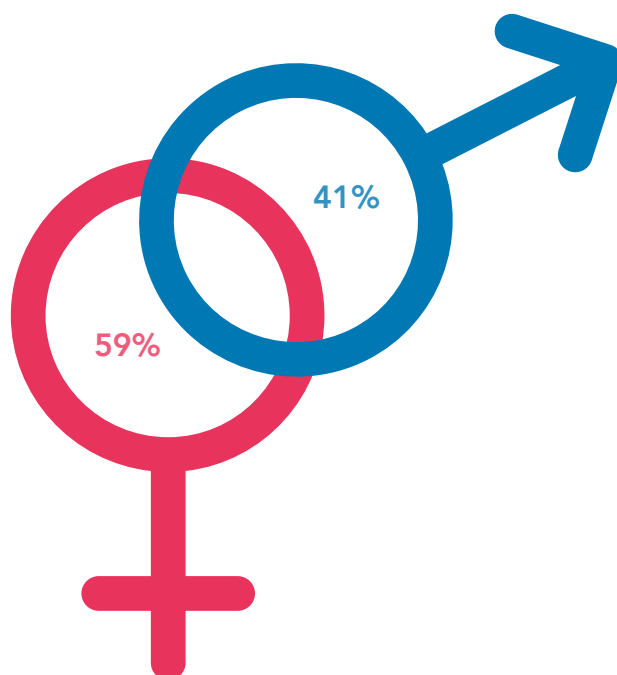


108 students graduated in 2019/20.

50 MSc students graduated



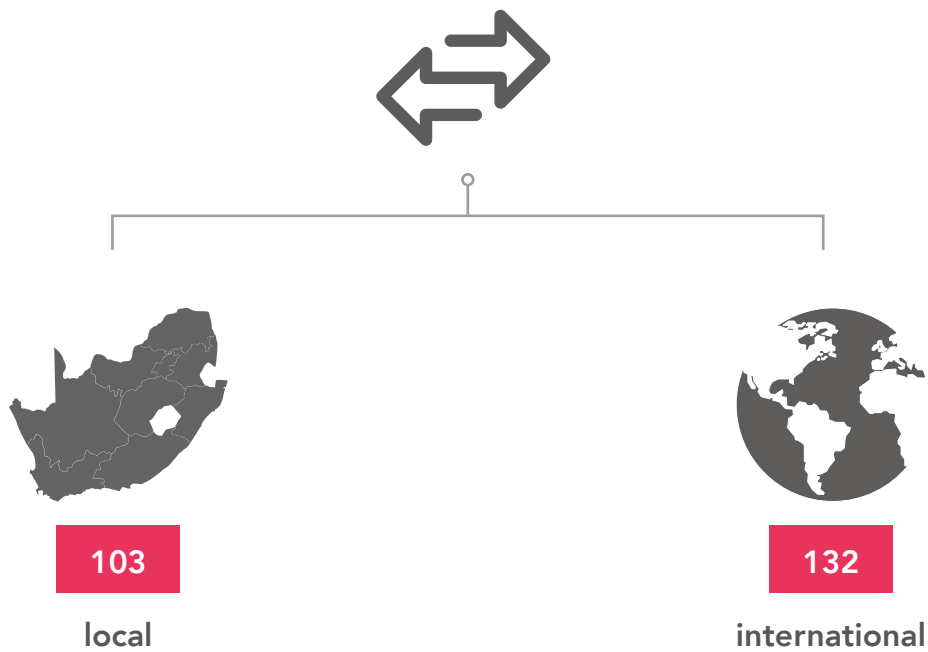
58 PhD students graduated



# PARTNERSHIPS

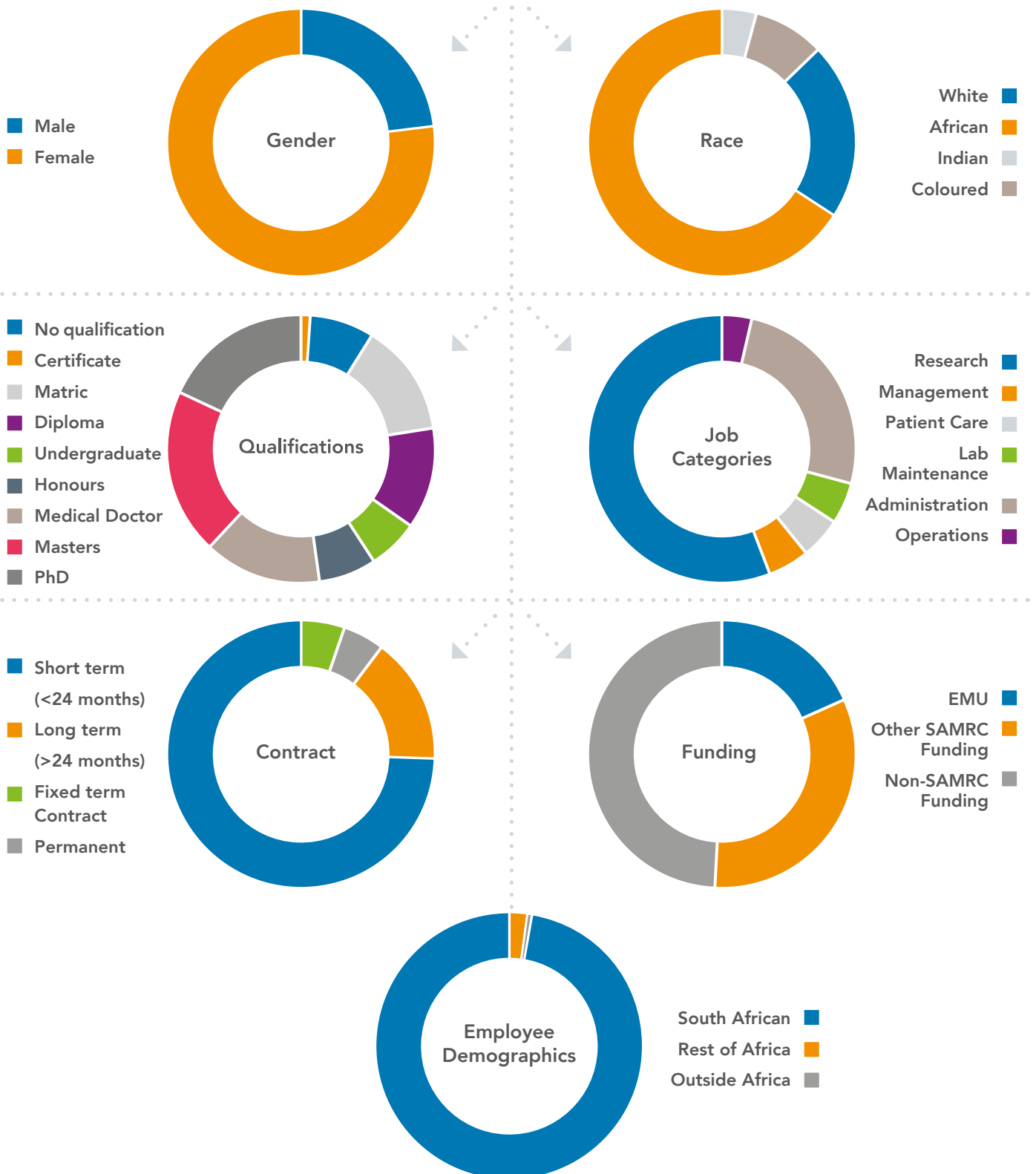
Building partnerships and collaborations are mechanisms by which capacity is built and research skills are exchanged. In ensuring that projects have the desired outcomes and contribute to the enhancement of national priorities, EMUs are part of partnerships that drive our country's research agenda and originate from a real need to address the country's health problems.

There are currently **235 EMU Collaborations** for the **2019/20 FY**; indicative of mechanisms by which **research skills** and **practice knowledge** is exchanged, developed and enhanced.



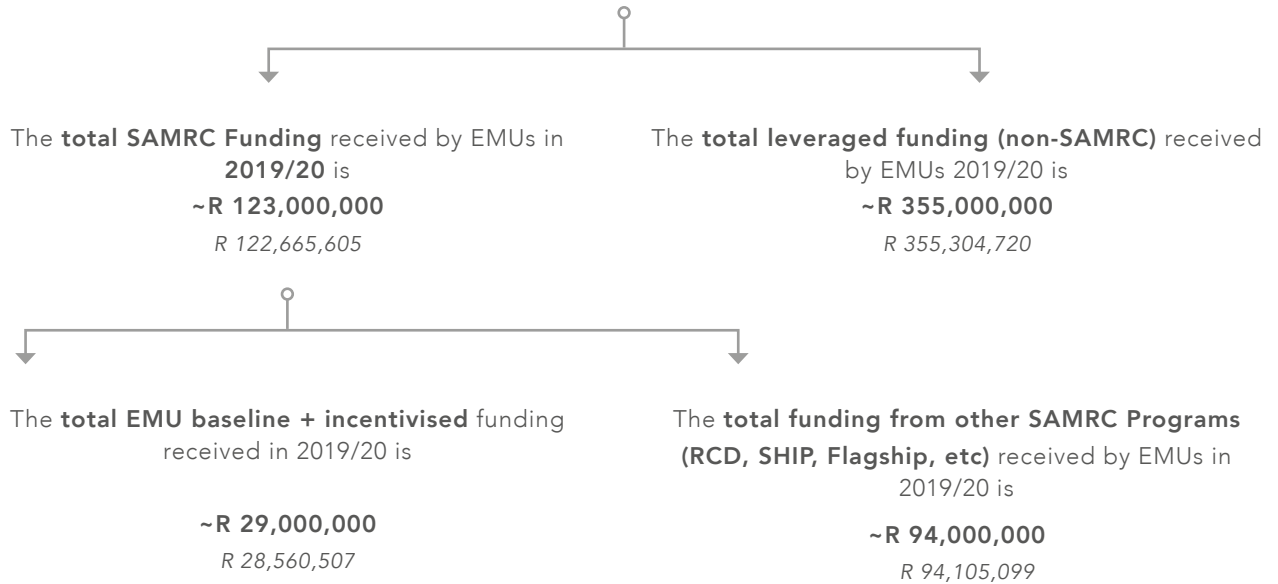
# JOBS CREATED BY EMUS

There were **197 Jobs created** in 2019/20; most of the jobs are **high value, knowledge-based jobs** that contribute to medical research and the economy.



# FUNDING RAISED BY THE EMUS

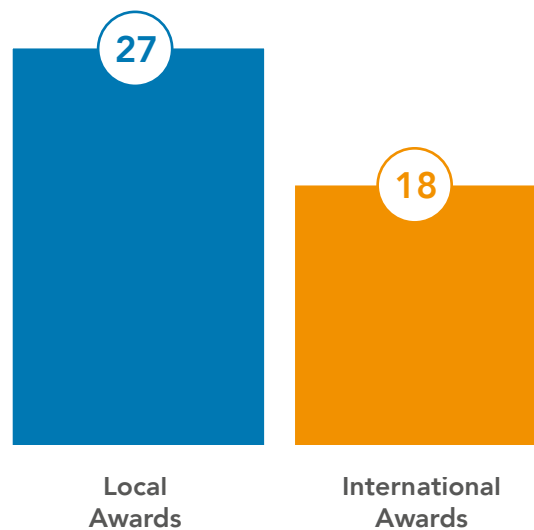
The **total funding** received by **EMUs** in 2019/20 was  
**~R 478,000,000**  
R 477,970,325





# AWARDS RECEIVED BY EMUS

The number of **local and international awards** is a reflection of the **reach** and **significance** of the EMU research.



## SOME OF THE LOCAL AWARDS RECEIVED

- Social Innovation Award
- NSTF-South 32 Award
- Best Oral Presentation Award
- SAMRC Platinum Scientific Merit Award
- Vice-chancellor's Research Award
- Young Researcher Award
- Lifetime Achievement Award
- Academic Excellence Award
- SAMRC Gold Medal Award
- Harry Oppenheimer Fellowship Award
- SAMRC Scientific Merit Award
- South African Health Excellence Award

## SOME OF THE INTERNATIONAL AWARDS RECEIVED

- Best Research Poster Award
- Best Oral Presentation Award
- Young Physician Leaders Award
- Aspen New Voices Fellowship Award
- One of the 100 Most Influential Africans Young Award
- African Researcher Award
- Trust Discretionary Award
- Lifetime Achievement Award



# SUMMARY OF EMU IMPACT

|   | 2017/18      | 2018/19      | 2019/20      |
|---|--------------|--------------|--------------|
| <b>Regional Leadership</b>              |              |              |              |
| <b>EMU Institutional spread</b>         | <b>8</b>     | <b>8</b>     | <b>11</b>    |
| <b>Equity in the leadership (UDs)</b>   |              |              |              |
| #previously disadvantaged UD            | 33%          | 36%          | 44%          |
| #women UD                               | 22%          | 21%          | 39%          |
|   |              |              |              |
| <b>Knowledge creation</b>               |              |              |              |
| Publications                            | 430          | 465          |              |
| #Collaborations                         | 40           | 155          | 235          |
| #Local                                  | 33           | 80           | 103          |
| #International                          | 7            | 75           | 132          |
|   |              |              |              |
| <b>Creation of Human Capital</b>        |              |              |              |
| #Students registered                    | 426          | 575          | 618          |
| #female students                        | 65%          | 64%          | 63%          |
| #previously disadvantaged               | 64%          | 67%          | 69%          |
| #students trained from rest of Africa   | 76%          | 78%          | 79%          |
| #students sponsored from rest of Africa | 81%          | 81%          | 78%          |
|   |              |              |              |
| #Students graduate                      | 97           | 76           | 108          |
| #MSc students                           | 51           | 29           | 50           |
| #MSc-female                             | 78%          | 72%          | 62%          |
| #PhD students                           | 46           | 47           | 58           |
| #PhD-female                             | 54%          | 51%          | 59%          |
|   |              |              |              |
| #Jobs created                           | 161          | 247          | 197          |
|   |              |              |              |
| <b>Regional influence</b>               |              |              |              |
| <b>Total funding raised</b>             | <b>R390m</b> | <b>R548m</b> | <b>R478m</b> |
| #Jobs created                           | 161          | 247          | 197          |
| #Awards received                        |              | 25           | 45           |
| #National                               |              | 18           | 27           |
| #International                          |              | 7            | 18           |

The background is a solid blue color with a complex, abstract geometric pattern. The pattern consists of various overlapping shapes, including circles, squares, and lines, creating a sense of depth and movement. A prominent feature is a large, circular diagram in the center, which appears to be a technical or architectural drawing, possibly a floor plan or a cross-section of a structure. The diagram is composed of concentric circles, radial lines, and various rectangular and circular elements, all rendered in a lighter shade of blue. The overall effect is a modern, technical, and futuristic aesthetic.

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