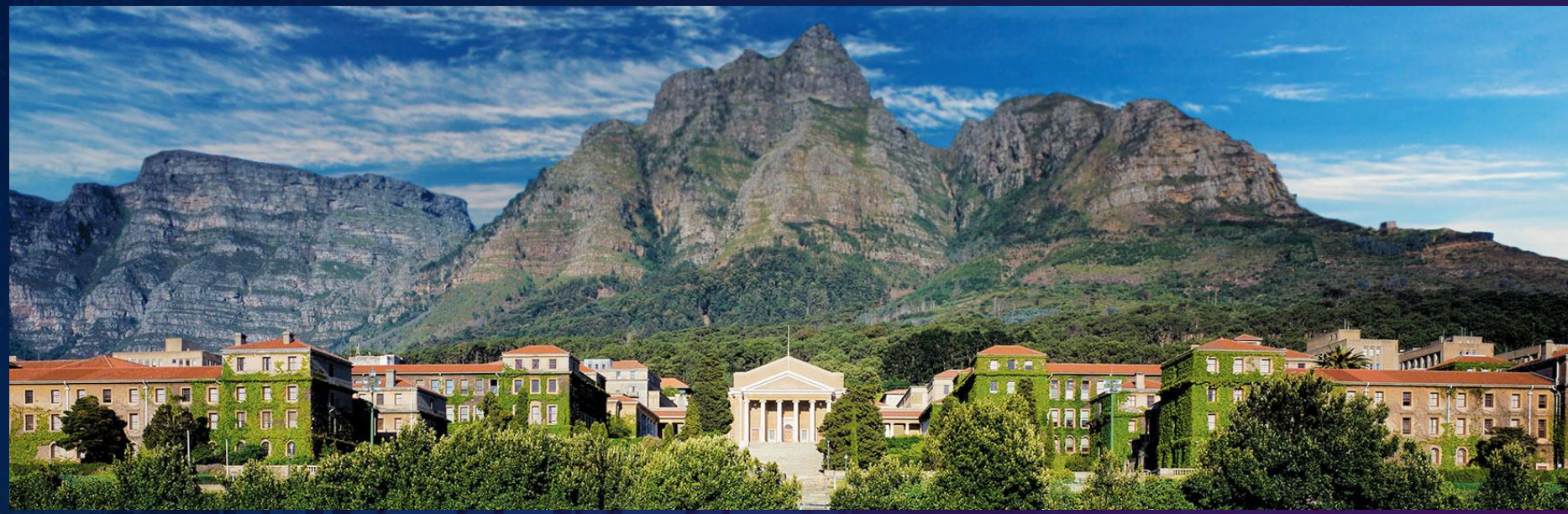




BRICS BIODESIGN Programme

UCT – South Africa

THE UNIVERSITY OF CAPE TOWN

Founded in 1829 as the South African College - South Africa's oldest higher education institution. Motto: Spes Bona.

1829

Founded

As the South African College;
South Africa's oldest
university

147th

Globally - and first in Africa

THE World University
Rankings 2027 (up from
164th in 2026)

1st of 69

Sub-Saharan African universities ranked

THE World University
Rankings 2027

Top 2%

Worldwide; first in Africa

QS World University
Rankings 2027 (184th of
8,808 universities)

5 Nobel laureates among staff and alumni

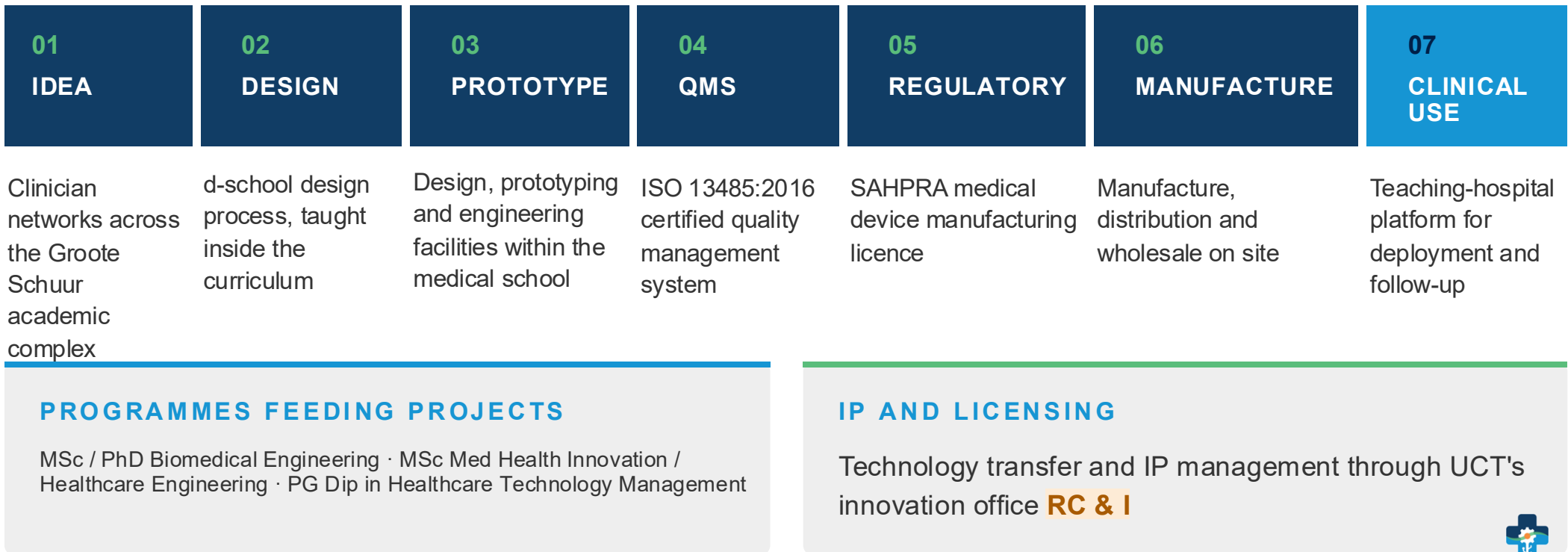
Ralph Bunche (Peace, 1950) · Max Theiler (Medicine, 1951) · Allan
Cormack (Medicine, 1979) · Aaron Klug (Chemistry, 1982) · J.M.
Coetzee (Literature, 2003)

35 NRF A-rated researchers

Just under a third of South Africa's total – more
than any other university in the country

DEPARTMENTS, FACILITIES AND THE TRANSLATION PATHWAY

UCT MedTech sits within the Biomedical Engineering Research Centre (BMERC), Division of Biomedical Engineering, Department of Human Biology, Faculty of Health Sciences. Each step of the translation pathway is backed by an institutional asset that already exists.



UCT MedTech



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD



03 — DEVICE PORTFOLIO

UCT MEDTECH, INSIDE BMERC

- Two laboratories
- Based at UCT Medical School
- ISO 13485:2016 certified · SAHPRA licensed

A PORTFOLIO OF DEVICES, DEPLOYED NATIONALLY



Face shields produced & distributed nationally during COVID



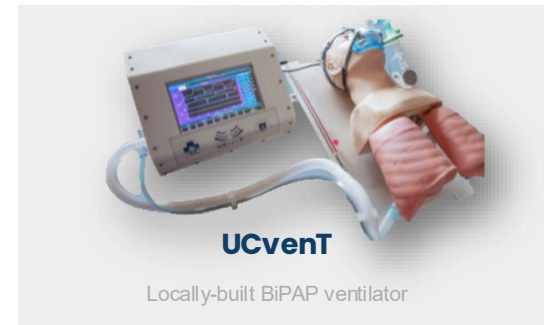
ZiBiPen

Reloadable auto-injector



Easy Squeezy

Inhaler assistant device



UCvent

Locally-built BiPAP ventilator



FlexiGyn

Handheld women's-health device



OptiJect / Guardian

Auto-injector adherence platform



Inspyre

Home sleep-apnoea diagnostic



Ptosis Crutch

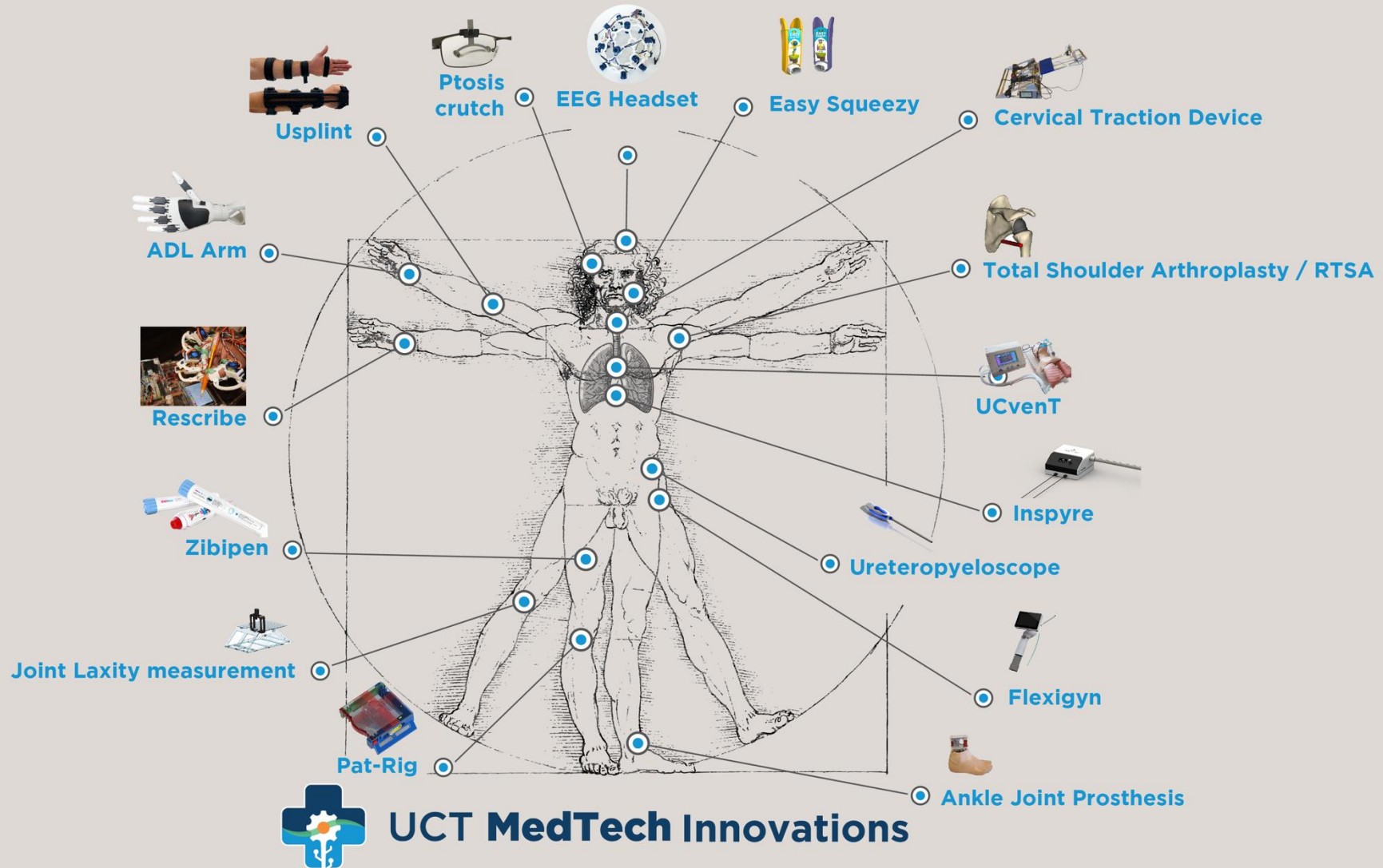
Spectacle-mounted eyelid support



reScribe

Robotic hand for stroke rehab

Head to Toe of MedTech Innovations



FACULTY EXPERTISE AND RESEARCH FOCUS



Assistive technology and access

Devices that restore participation, not just function



Appropriate biodesign for low-resource settings

Designing for constrained health systems by default



Orthopaedic and computational biomechanics

Implant biomechanics, shape modelling, planning



Responsible AI in health

Safe use of models that run under scrutiny



Value-based care and health systems

Outcome per unit cost across the whole pathway



Device commercialisation in emerging markets

Regulatory, manufacturing and adoption routes

KEY AREAS OF CONTRIBUTION TO THE BRICS BIODESIGN PROGRAMME

CONTRIBUTION

WHAT IT WOULD LOOK LIKE

01 Regulatory and manufacturing pathway

Route to market for BRICS-designed devices

02 Joint biodesign sprints

Run simultaneously at two or more BRICS sites

03 Co-supervised postgraduates

Two supervisors, one exchange each way

04 Multi-country clinical validation

One device, one protocol, several systems

05 Appropriate device platforms

Co-developed for local manufacture

06 Joint grant applications

Joint device development across the consortium



Thank You

Interested in applying or partnering with us to BRICS Biodesign Programme,
please email: medtech@uct.ac.za



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

