



# A SNAPSHOT OF RESEARCH AT UCT



# DRIVING RESEARCH FOR AFRICA AND THE WORLD



## Strategic networks

UCT is uniquely positioned as the premier academic meeting point between South Africa, Africa and the rest of the world. Taking advantage of expanding global networks and our distinct vantage point in Africa, UCT is committed, through innovative research and scholarship, to grappling with the key issues of our natural and social worlds. The university is a member of several key international networks and partnerships.

While each has a different purpose, all of them aim to strengthen the global knowledge project with a belief that close and equitable collaboration is critical to developing capacity and addressing humanity's grand challenges. While aspiring to deliver cutting-edge global research, UCT centres knowledge built in Africa that contributes to the social, environmental and economic wellbeing of people across the continent.

### AFRICAN RESEARCH UNIVERSITIES ALLIANCE (ARUA)

ARUA brings together peer institutions across Africa with the aim of fostering research excellence on the continent. This collaboration works to discover solutions to the grand challenges facing Africa and explore opportunities for its future. It aims to become a pan-African network for bringing research and academic excellence to the fore throughout the region by developing strong and viable research universities.

### INTERNATIONAL ALLIANCE OF RESEARCH UNIVERSITIES (IARU)

UCT is the only African member of IARU, a small network of leading research universities from nine different countries. The members share similar values, a global vision and a commitment to educating future world leaders. Central to these values is the importance of academic diversity and international collaboration.

### WORLDWIDE UNIVERSITIES NETWORK (WUN)

WUN is a global education and research network that collaborates with more than 20 member universities across six continents to create opportunities in international research and graduate education. The WUN's broad geographic spread positions it for comparative study of critical developments and challenges.

## Global multilateral initiatives

UCT is a member of various multilateral initiatives focused on delivering high impact towards addressing particularly complex and intransigent challenges on the continent.



### AFRICAN HIGHER EDUCATION HEALTH COLLABORATIVE

UCT is a member of a 10-year collaborative that has a vision to prepare young people for the meaningful work of growing African health sectors to meet the health needs in their respective countries. The collaborative is anchored in Africa and consists of eight African academic institutions that include Addis Ababa University (AAU), the African Institute for Mathematical Sciences (AIMS), African Leadership University (ALU), Ashesi University, Kwame Nkrumah University of Science and Technology (KNUST), Moi University, the NGO Amref, and UCT, along with the University of Toronto and Mastercard Foundation (MCF).

The collaborative will build on existing networks to ensure that local knowledge and expertise are prioritised to create exponential impact. While they work together, each partner has developed its own project; the UCT project focuses on four strategic thrusts: the health ecosystem, health entrepreneurship, innovative interventions and practical improvements, and learning and action.

### HIGHER EDUCATION CLIMATE RESILIENCE AND SUSTAINABILITY COLLABORATIVE

UCT is a member of another ambitious 10-year Mastercard Foundation collaborative initiative focused on climate – the Higher Education Climate Resilience and Sustainability Collaborative – initially comprising UCT, the University of Ghana, Makerere University, and the University of Cambridge. The collaborative will dramatically expand the capacity for research, data collection and management and innovation. The African partners will be regional anchors for the collaborative that will create a multiplier effect by working with additional universities to build their respective centres for climate change.

### AFRICA-EUROPE CLUSTERS OF RESEARCH EXCELLENCE

The Africa-Europe Clusters of Research Excellence (CoRE) was formed to co-create cutting-edge knowledge necessary to address the grand challenges, especially those dominant in Africa and in a manner that recognises Africa's context and expertise. The CoRE, which is led by the African Research Universities Alliance (ARUA) and The Guild of Research-Intensive European Universities (The Guild), brings together distinguished researchers from universities and research institutes across both continents. Of the centres of excellence, four are co-led by UCT with at least one partner from The Guild:



**Food environment actions for the promotion of public health** – co-led with Uppsala University (Sweden).



**Non-communicable diseases and multi-morbidity** – co-led with Université Paris Cité (France), University of Glasgow (Scotland), Jagiellonian University (Poland), Université Cheikh Anta Diop (Senegal), University of Ibadan (Nigeria) and University of Nairobi (Kenya).



**Nature-based solutions for climate change** – co-led by UCT and Stellenbosch University (South Africa) with Università di Bologna (Italy).



**Collaborative excellence for equity: Promoting impactful research and education on inequalities, poverty and deprivation across Africa** – co-led with the University of Groningen (Netherlands).



# VISION 2030 RESEARCH FOCAL AREAS

Research at UCT is focused on addressing global challenges and realising both new opportunities within the social and natural world and new knowledge underpinning innovations of the future. Building on UCT's deep disciplinary expertise, our research aims at working collaboratively and equitably and using inter-, multi- and transdisciplinary approaches. This aligns with UCT's Vision 2030, which seeks to 'unleash knowledge in, for and from Africa to redefine and co-create a sustainable global future'. These initiatives serve to strengthen UCT's already active research based broadly on five strategic focal areas, namely:

## BUILDING A HEALTHY AFRICA

Health is undeniably a fundamental driver of human development and plays a pivotal role in achieving sustainable and inclusive growth on the continent. While addressing the substantial burden of disease in Africa remains a core objective, UCT's research focuses on the proactive achievement of optimal health, fostering a future where individuals, communities and cities not only combat disease but increasingly avoid disease to flourish, ensuring a more sustainable and inclusive growth trajectory for the continent.

## RESOURCE EFFICIENCY AND NATURE-BASED SOLUTIONS FOR SUSTAINABLE DEVELOPMENT

Africa is rich in natural resources, yet natural resource depletion is a critical concern with the continent's economic development and a growing population. UCT is a leader in research that focuses on resource efficiency to maximise social value and minimise waste, drives sustainable development through responsible resource beneficiation, and leverages nature to protect and restore ecosystems on our continent. Our research aims to develop innovative technologies and practices to reduce resource consumption and waste, while promoting renewable energy and food security.

## OUR SOUTHERN LOCATION

UCT recognises the unique geographic position and context of our institution. Located at the tip of southern Africa, the university has three oceans on its doorstep, the great southern skies above and the most diverse floral kingdom in the world. Focusing on our location and its resources as a strategic research area, UCT is well placed to address the unique challenges and opportunities presented by our geography. This includes studying the environmental dynamics of southern Africa, developing solutions to address the region's challenges and opportunities, and translating global targets on curbing biodiversity loss into locally relevant, achievable Africanised targets.

## ADVANCING AFRICA

UCT is committed to building and applying knowledge to enhance a vibrant and dynamic economy and society that creates jobs, supports sustainable development and enhances human well-being. To address this, UCT's research focuses on the specific urban, rural, environmental and economic contexts of our continent that also have global resonance, promoting the development of new ideas, knowledge and impact that drive economic growth and social progress.

## ON BEING HUMAN

UCT's approach to promoting a better understanding of what it means to be human involves exploring a range of issues related to social justice, human rights, diversity and cultural expression. Central to these conversations is the importance of engaging with the diverse experiences, cultures and histories that make us human, and promoting respect and empathy for all.

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