A model for drug discovery and development in Africa

The COVID-19 pandemic has simultaneously highlighted global inequalities, underscored the importance of building local infrastructure and capacity for health innovation, and provided evidence that African institutions and scientists have the scientific capability to make important contributions to global health solutions.

In a commentary in the journal *Nature Medicine*, researchers from the Holistic Drug Discovery and Development (H3D) Centre at the University of Cape Town (UCT) outlined what has made H3D so successful and how it could potentially serve as a model for translational research within a university setting.

Since the official launch of the H3D Centre’s programs in April 2011, there have been notable advances in innovative drug discovery projects, the establishment of a global network of research and funding partners as well as infrastructure development intimately aligned with capacity-strengthening across the continent.

The team highlighted six areas that have been integral to H3D’s success: mitigating the ‘brain drain’ on the African continent by developing robust infrastructure and technology platforms and creating jobs supported from project funding; securing UCT institutional and South African government support and funding; leveraging partnerships; developing a governance structure that supports innovation; rewarding success and developing effective mentorship programmes.

‘We showcase H3D’s pathway to prominence and the pioneering work to create models for sustainable translational research within a university environment, from innovative networks of partnerships models to governance systems that incentivise team-based science, research career development and quick decision-making underpinned by people-centric mentorship models,” shared Professor Kelly Chibale, director of H3D.

In its initial phase the Centre also made sure to attract industry-experienced professionals to H3D to lead and provide support and mentorship to the growing team.
On aligning the Centre’s goals with national priorities: in particular, the national bioeconomy strategy of the South African government, which culminated in the H3D Centre being formally designated a national Technology Innovation Agency (TIA) Platform, Susan Winks, head: research operations & business development at H3D shared: “Financial support from the South African government is effectively leveraged against international investment, making it cost effective for research and funding partners to work with the H3D Centre on collaborative projects while benefiting the government by attracting foreign direct investment to South Africa and creating local jobs and scientific capacity.

“Our partnerships also play a pivotal role in our success. Our relationships with product development partners such as the Strategic Health Innovation Partnerships (SHIP) unit of the South African Medical Research Council (SAMRC) and Medicines for Malaria Venture (MMV) is mutually beneficial in securing access to funding, extending established networks of experts and the capabilities required in a particular disease area to take a product from discovery through to development.”

The team also highlighted the importance of a performance management system that ensures strategic alignment of the Centre, teams and individuals while also creating opportunities for salary augmentation, career development and 360° feedback.

The H3D performance management system was designed as a developmental tool to facilitate staff growth and career development while aligning all staff to the Centre’s strategic objectives and goals. In order for H3D to retain and develop employees, staff must have opportunities for both vertical progression (traditional promotion) and horizontal growth (skill diversification).

Access the full article.
The H3D team

Photo: Monique Muller

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