

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

## Perspectives

## **Profile** Ali Zumla: respiratory medicine and global health supremo



Whether it is in his clinical work or endeavouring to connect colleagues across continents for future pandemic preparedness, Ali Zumla is motivated by improving patient care and the health of neglected populations. For this eminent clinician-researcher is at heart a humble man, always striving for excellence on the hospital ward or in developing plans to improve global health. As Professor of Infectious Diseases and International Health at University College London, UK, COVID-19 has been a major part of his work over the past 2 years. "The pandemic exposes weaknesses of current leadership of global public health systems, inequities of resource allocation to Africa, and broken promises by wealthier nations for vaccine equity and resource allocation. This status guo is unacceptable," he says.

This perspective links to Zumla's priorities in global health, notably his creation and co-directorship of the Pan-African Network For Rapid Research, Response, Relief and Preparedness for Infectious Disease Epidemics (PANDORA-ID-NET). This "One Health" Africa-Europe partnership is working across animal and human health sectors to better understand epidemic zoonotic diseases and the implications for future pandemic preparedness. "My ideas for this arose from lessons from the 2014-16 Ebola outbreak in west Africa, where it became clear that African nations needed to build their own sentinel surveillance and response capacities to such outbreaks", he explains. Zumla, with his own roots in Africa having been brought up in Zambia, created a strategic plan for PANDORA-ID-NET, which yielded €10 million of funding from the EU-funded European and Developing Countries Clinical Trials Partnership (EDCTP), effective from 2018. An additional €2 million was allocated to the partnership in the current pandemic. This funding is helping COVID-19 research programmes, including health-care worker training for infection control, diagnostic sequencing, and pathogenesis research, in close collaboration with the Africa Centres for Disease Control and Prevention, one of PANDORA-ID-NET's partners. Zumla believes that this effort should help prioritise the needs of neglected populations. "Many people are crippled by the common long-term effects of multidrugresistant tuberculosis [MDR-TB] and COVID-19, due to lung fibrosis, aberrant immune systems, depression, and chronic fatigue. More attention needs to be focused on individuals whose lives are being shattered by the double impact of the two pandemics of MDR-TB and COVID-19", he urges.

Zumla's career has been part of a revolution in tuberculosis and other areas of respiratory health progress in the past 35 years. "The transformation has been profound, illustrated by advances in the development and roll-out of rapid diagnostics, new drugs, and shorter and safer treatment regimens through capacity building of laboratory and trial sites, and empowerment of a younger generation of African and European investigators", he says. Working with key figures at the STOP TB Partnership, the WHO Global Tuberculosis Programme, the UK All Party Groups on Global Tuberculosis and Global Health, and national governments, he has been central to a tuberculosis advocacy movement that created traction at the 2018 UN high-level meeting on tuberculosis to achieve new global control targets. "The urgent priority now is to get TB control efforts back on target in light of the setbacks incurred due to the COVID-19 pandemic", he says.



Despite his concerns about the effects of the pandemic on addressing other diseases in sub-Saharan Africa and of COVID-19 vaccine inequity, Zumla is optimistic of new African Union initiatives that will enable vaccines and diagnostics manufacturing capacities to strengthen Africa's response to future disease outbreaks. "This is the start of a much-needed step-up change in African leadership and increased resources, which will motivate young African researchers to build their careers within Africa and advance front-line research", he says. Francine Ntoumi, President and Chief Executive Director of the Fondation Congolaise pour la Recherche Médicale, Brazzaville, Congo, and Co-Director of the PANDORA-ID-NET programme with Zumla, is one such African research leader, and comments: "Ali has taught us to share his vision to strive for excellence and leave an impactful legacy of improved health services, through developing cross-continental networks and empowering the younger generation to take leadership of tackling poverty related diseases and pathogens with epidemic potential...His total focus on leaving the world a better place has been hugely influential and inspires us to follow his role model."

Zumla, knighted in 2017, is less interested in retirement than expanding PANDORA-ID-NET. "Building on my experiences of cross-continental collaboration while working on Middle East respiratory syndrome, an interconnected approach to protect human and environmental life is clearly where our future global health security lies. We need to replicate PANDORA-ID-NET across the world to establish such cross-continental networks", he says. And reflecting on his own career, Zumla points to a life-changing moment. "There is no doubt that my own experiences of severe illness as a young doctor and persisting disability shaped my trajectory and passion for working in infectious diseases and areas linked with poverty, consistent with my philosophy on improving the health of disadvantaged and poor populations. But this has only been possible as a result of enduring and collaborative efforts with colleagues and patients, and above all, from the love and support of my family", he says.

**Richard Lane**