

## Alimuddin Zumla: infectious diseases guru and survivor



Two near-death experiences have made Alimuddin Zumla cherish every day of life. Zumla, now one of the world's most respected infectious and tropical diseases experts, and Professor of Infectious Diseases and International Health at University College London (UCL), often reflects on these experiences and second chances that fate has given him. The first, while working as a junior doctor in London in 1982, was a bout of crippling tuberculous meningitis. Doctors said he would never walk again, but Zumla overcame this prognosis. The second scare came in 2005; misdiagnosed as tuberculosis, the mysterious illness was eventually diagnosed as multisystem sarcoidosis from information collected by his wife Farzana from the textbook *Granulomatous Disorders* that Zumla himself had authored.

As a teenager, Zumla declined the prestigious Rhodes Scholarship to study medicine at Oxford University, UK, and remained in his native Zambia to train as a doctor. His early career highlights included an award-winning PhD at the London School of Hygiene and Tropical Medicine, as a Beit Scholar, and thwarting a major outbreak of Legionnaire's disease in central London while working as a registrar at Rush Green Hospital, Romford. In 1994 he joined UCL, where, in addition to his routine academic work and clinical ward rounds, he leads several overseas research and capacity development programmes.

Zumla has the rare gift of getting scientists and doctors to work with one another synergistically, a skill that has facilitated numerous collaborations involving ten nations in sub-Saharan Africa and 12 in Europe. "I'm often asked to chair international meetings for exactly this reason", Zumla smiles. He has attracted over £50 million (\$US80 million) in grants for clinical trials and epidemiological and translational infectious diseases research.

Zumla recently published data on the new Xpert MTB/RIF assay for rapid diagnosis of tuberculosis in children using gastric lavage samples. But his dream is to "produce a cheap, solar powered point-of-care test that will rapidly screen for a range of pathogens from a single sputum sample". He recently acquired a large European Union grant for this purpose.

Zumla's expertise is not restricted to developing countries. A chance comment by his son in 1998 outside a London supermarket got him thinking about tuberculosis possibly resurging in the UK. "A beggar coughed as I gave him spare change, and my son, then aged just 5, pulled me away saying: 'Careful dad! he might have TB'." With support from local charities, Zumla initiated the London TB Link Project that highlighted the problem of tuberculosis in London's disadvantaged populations

and led to strengthening of UK National Health Service tuberculosis services after decades of neglect. His recent Comment in *The Lancet*, "The white plague returns to London—with a vengeance", and his advisory role to the UK All-Party Parliamentary Group on Global Tuberculosis have further focused political and media attention to tuberculosis in Europe.

Zumla stresses that tuberculosis is a disease that can affect anyone, anywhere, rich or poor, and points out that former US First Lady Eleanor Roosevelt and former South African President Nelson Mandela both had tuberculosis. "Globally there are 2 billion people with latent *Mycobacterium tuberculosis* infection, who can develop tuberculosis at any time. That tuberculosis causes 1.4 million deaths annually, despite a cheap and effective cure being available for the past 50 years, reflects man's inhumanity to man creating poverty and social conditions which propagate this disease", he says.

Zumla believes that the big challenges facing tuberculosis and HIV control in the future are drug resistance and the continuing blight of global poverty. "Drug-resistant tuberculosis has come to roost in Europe's back garden and is an ominous sign highlighting the urgent need for new drugs and novel treatments", he says. One strategy being explored by Zumla and his colleague Markus Maeurer is the use of autologous bone-marrow-derived stem cells to treat terminally ill patients with drug-resistant tuberculosis in Belarus.

Maeurer, Professor of Therapeutic Immunology at the Karolinska Institutet, Sweden, says "Ali Zumla is a truly unique human being: a brilliant, compassionate, warm, selfless, collegial, considerate, dedicated person totally focused on activities which yield extremely high-impact scientific, political, and advocacy deliverables for improving the health and lives of the poorer and disadvantaged populations of the world". These sentiments are echoed by Peter Mwaba, Consultant Physician and Permanent Secretary at the Zambian Ministry of Health. "I and many others have been empowered by Professor Zumla's devotion and selfless commitment to improving the lives of impoverished populations. That focus is his life's ambition. Many of today's academics could learn from his example."

The Zambian Government also recently added its own accolade to the many honours that Zumla has received: Zambian President Michael Sata presented Zumla with the highest civilian honour, Grand Commander of the Order of Distinguished Service, First Division. "It was an extremely proud and heartwarming moment to get this recognition from my home country", remarked Zumla.

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For Zumla's piece on tuberculosis in London see [Comment Lancet 2011; 377: 10-11](#)