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Letter

What matters, most-especially now?

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When we make decisions in both research and clinical care the objective is to make a difference. That's why we're here, right? This question and reflex answer is routinely in my head and now it's been amplified by the COVID-19 pandemic.

Understanding the needs and priorities of my hospital here in the UK offers a stark contrast with the limited medical resources and coping abilities of The Gambia. And I know that across Africa and in other low-income countries, the situation will be much the same.

As a specialist in paediatric infectious diseases, there are options for how best I can contribute to the national effort to combat this virus. I could support the NHS as a clinician; use my academic skills to advance research on vaccines, advocating for their use: or try to mitigate the collateral damage that is going to arise from this pandemic by highlighting the need for vaccines and child health services.

Yet back in The Gambia, options are a rare luxury. My colleagues struggle to get potentially life-saving tests and clinical equipment delivered. Critical research is virtually on hold, including my own advanced vaccine trials. So, should I be writing different grants, should I jump on the bandwagon of the only-funding-show-in-town right now to keep our teams going? Such thoughts more or less sum up my dual life as clinician-scientist working in both the UK and sub-Saharan Africa. This is not a source of complaint, because there are rich experiences and worthy dilemmas that emanate from combining scientific research in vaccines and immunity with a clinical perspective.

Translation of laboratory science to policy and practice is a long road, but in my field of vaccine research it is a particularly rewarding one. To start from assessing immune responses elicited by a novel vaccine in a small group of volunteers, and to reach the productive time when this vaccine is licensed and introduced into the WHO-recommended Expanded Program of Immunization (EPI), knowing the lives of thousands of children who might otherwise suffer from meningitis or pneumonia will instead be saved – well, that answers my opening question. This is about making a difference, making targeted effort all worthwhile [1].

To test novel diagnostics for children with tuberculosis and figure out what works for children and what doesn't is necessary [2]. But as we still don't have a perfect answer, we plough on. To study the development of the neonatal immune system in unprecedented depth with systems biology tools and to discover all of the changes in just the first week of life has been fascinating [3] – though to be able to apply this new knowledge to inform the next generation of vaccines remains an ambition for now. To prevent infections in babies because a vaccine can be given to their mothers in pregnancy, has been utterly rewarding, and yet I know there is so much scope for more to be done [4]- both in discovery and implementation.

All the positives I describe here cannot be achieved without teams, without a collective effort. To work together with my highly valued global community of students, postdocs and colleagues has been one of the best parts of my career.

This job - if that is the correct word - is never done [5], but it will always get me out of bed with full enthusiasm, energy-sapping pandemic or not.

Declaration of Competing Interest

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