Antifungal resistance: more research needed

We welcome the efforts of the Antimicrobial Resistance Funders’ Forum, led by the UK Medical Research Council, to coordinate approaches for research on antimicrobial resistance, as reported by Geoff Watts (Aug 2, p 391). However, we wish to voice our concerns at the apparent restriction of these efforts to antibacterial resistance. Although undoubtedly an area of major global concern, bacteria are not the only microbes for which resistance is a growing threat to human health and wellbeing. In particular, drug resistance in fungal pathogens needs urgent research attention.

Invasive fungal disease affects more than 2 million people worldwide and now accounts for more deaths annually than either tuberculosis or malaria. Mortality rates for invasive fungal disease are generally higher than for bacterial disease, and despite new antifungals, can approach 75% in specific clinical settings. Although treatment options are available, the incidence of clinically relevant resistance is increasing; the triazole class of drugs are the only effective oral treatment for invasive aspergillosis and pan-azole resistance is increasingly detected. Alarmingly, triazole resistance in Aspergillus species recovered from rural locations has recently been reported in the environment in the UK. Despite this finding, fungal disease and biology receives less than 2% of the UK’s annual public and philanthropic infection biology research budget, and less than £1.5 million from these sources is spent specifically on antifungal resistance research every year. The UK has a strong research base in fungal biology, recently strengthened by a Welcome Trust Strategic Award, and unique strengths in the clinical aspects of mycology (eg, British Society for Medical Mycology, UK Clinical Mycology Network, and the National Aspergillosis Centre). We urge the Antimicrobial Resistance Funders’ Forum to take advantage of this expertise and advocate strongly for the inclusion of antifungal resistance in the forthcoming funding rounds.

DWD holds founder shares in F2G (biotechnology company specialising in antifungal research and development), and has been paid for talks on behalf of Astellas, Merck, Gilead, and Pfizer. All other authors declare no competing interests.

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Syrian refugees in Turkey: effects on intensive care

Since the civilian war in Syria began, millions of Syrian refugees have migrated to neighbouring countries.