Reply to "Re: Fungal Nomenclature: Managing Change Is the Name of the Game"

To the Editor—Earlier this year, we published an overview of taxonomic changes for medically relevant yeasts and molds [1], which is a heavily debated issue given the many changes currently impacting diagnostic laboratories. We are grateful to Dr. Denning for his comments on this article, and while we attempted to cover a wide range of issues around fungal nomenclature change, we agree that there remains a need to consider the nomenclature of disease manifestations caused by fungi, which are frequently named for the causative taxa [2]. For example, can the disease term "candidemia" be applied to bloodstream infections caused by *Nakaseomyces glabratus* (formerly *Candida glabrata*) or *Clavispora lusitaniae* (formerly *Candida lusitaniae*)? And similarly, does the term fusariosis still apply to infections caused by *Bisifusarium dimerum* (formerly *Fusarium dimerum*) or *Neocosmospora solani* (formerly *Fusarium solani*)? Where therapeutic guidelines, drug licenses, and formulary indications utilize such terminology, is there potential for patients to be excluded from what would otherwise have been defined as appropriate therapy due to taxonomic change?

The naming of fungal disease manifestations has been a recurring discussion throughout the past century. Thirty years ago, a subcommittee of the International Society of Human and Animal Mycology (ISHAM) warned of the instability of taxon-based disease nomenclature due to the inevitability of taxonomic change and provided recommendations for fungal disease nomenclature [3], which have thus far been largely ignored. We support Dr. Denning's proposal to refer to fungal disease entities in broader (nontaxonomic) terms, and this is consistent with the earlier recommendations of the ISHAM nomenclature subcommittee, "[pathology] due to [*pathogen name*]" or "[*pathogen name*] [pathology]" [3]. A report of "*Nakaseomyces glabratus* (*Candida glabrata*) fungemia," or bloodstream infection, is more descriptive and informative than "candidemia," and surely preferable to the creation of yet another taxon-based term, such as "nakaseomycosis." Similarly, a report of "disseminated hyphomycosis due to *Neocosmospora* (*Fusarium*) *solani*" is more informative than "fusariosis." Further, this approach would harmonize fungal disease terminology with that of bacteriology (eg, *Enterococcus faecalis* bacteremia, *Staphylococcus aureus* cellulitis) and virology (eg, respiratory syncytial virus pneumonia).

While the issue of nomenclature in medical mycology is often seen as divisive [4], it is of critical importance that the clinical diagnostic field collaborates with researchers using phylogenetics and taxonomy to ensure that proposals to change nomenclature make sense for end users. One such approach in bacteria has been to maintain the first letter and syllable of the new genus name (eg, *Clostridium difficile* has become *Clostridioides difficile*, following a short-lived attempt to name this organism *Peptoclostridium difficile*) [5]. Infectious disease and clinical mycology societies, such as the Australasian Society for Infectious Diseases, European Society of Clinical Microbiology and Infectious Diseases, Infectious Diseases Society of America, ISHAM, and Mycoses Study Group Education & Research Consortium, must work together to assess and provide guidance on issues such as the management of taxonomic change in the clinical and laboratory settings, as well as fungal disease terminology, which is no longer fit for purpose.

Acknowledgments

Financial support. None.

Potential conflicts of interest. All authors: no reported conflicts.

Sarah E. Kidd,[1] Alireza Abdolrasouli,[2,3] and Ferry Hagen[4,5,6]

[1]National Mycology Reference Centre, Microbiology & Infectious Diseases, SA Pathology, South Australia, Australia; [2]Department of Medical Microbiology, King's College Hospital, London, UK; [3]Department of Infectious Diseases, Imperial College London, London, UK; [4]Westerdijk Fungal Biodiversity Institute, Utrecht, The Netherlands; [5]Institute of Biodiversity and Ecosystem Dynamics, University of Amsterdam, Amsterdam, The Netherlands; and [6]Department of Medical Microbiology, University Medical Center Utrecht, Utrecht, The Netherlands

References

1. Kidd SE, Abdolrasouli A, Hagen F. Fungal nomenclature: managing change is the name of the game. Open Forum Infect Dis **2023**; 10:ofac559. doi: 10.1093/ofid/ofac559
2. Denning DW. Re: Fungal nomenclature: managing change is the name of the game. Open Forum Infect Dis **2023**; 10:ofad395. doi: 10.1093/ofid/ofad395
3. Odds FC, Arai T, Disalvo AF, et al. Nomenclature of fungal diseases: a report and recommendations from a sub-committee of the International Society for Human and Animal Mycology (ISHAM). J Med Vet Mycol **1992**; 30:1–10.
4. Kidd SE, Halliday CL, McMullan B, Chen SC, Elvy J. New names for fungi of medical importance: can we have our cake and eat it too? J Clin Microbiol **2021**; 59:e02730-20.
5. Prinzi AM, Moore NM. Change of plans: overview of bacterial taxonomy, recent changes of medical importance, and potential areas of impact. Open Forum Infect Dis **2023**; 10:ofad269. doi: 10.1093/ofid/ofad269

Received 17 July 2023; editorial decision 17 July 2023; accepted 19 July 2023; published online 21 July 2023

Open Forum Infectious Diseases®

https://doi.org/10.1093/ofid/ofad394