Editor's note

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Dear Readers,

I am very much delighted and thankful to present the *Aerobiologia*'s first special issue dedicated exclusively to the impact of climate change on fungal aerosols. The objective of this special issue was to publish up-to-date, high-quality and original research papers based upon long-term changes in concentration levels of fungal spores as a response to changing environmental conditions.

Fungal spores are an important part of the atmospheric bioaerosols and they may form up to 45 % of coarse particulate matter, while basidiospores and ascospores constitute between 40 and 100 % of total fungi detected in air particulate matter. Fungal spores, produced as a result of either meiosis (spores) or mitosis (conidia), constitute reproductive propagules enabling colonisation of new habitats. Most of fungi act as pathogens of economically important plants. More than 100 taxa have been also recognised as causal agents of allergies and respiratory tract diseases. In view of their high significance on agriculture

and public health, it is therefore necessary to investigate whether or not climate change will accelerate mycelial growth and spore production in future. A number of studies presented in this special issue tried to evaluate potential scenarios using archived spore and meteorological data, and wide range of statistical tools. Some authors attempted to produce forecasting models using regression analysis and artificial neural models in order to predict future levels of selected fungal spore types.

Overall, studies presented in this issue included evaluations of atmospheric distributions of following fungi: *Agaricus*, *Agrocybe*, *Alternaria*, *Arthrinium*, *Aspergillus–Penicillium*, *Chaetomium*, *Cladosporium*, *Coprinaceae*, *Curvularia*, *Didymella*, *Drechslera–Helminthosporium*, *Epicoccum*, *Ganoderma*, *Leptosphaeria*, *Pithomyces*, *Pleospora*, *Puccinia*, *Stemphylium*, *Teleforaceae*, *Torula*, *Venturiaceae*, *Xylariaceae*. The time span examined in here varied greatly, ranging from 3 to 15 years. Similarly, an extensive range with regard to a spatial analysis can be found. It is a great pleasure to offer a first of its kind Pan-European study, which pooled together data collected by 23 monitoring sites across the Europe. There are also studies that examined data from a single site or multiple sites located regionally or countrywide, available for Denmark, France, Greece, Hungary, Poland, Romania, Slovakia, Spain and United Kingdom.

In the end, I would like to take this opportunity to express my sincere thanks to the Editor-in-Chief Prof.

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