

Introduction to *JTD* Air Pollution Section

In 2010, outdoor air pollution contributed 3.2 million premature deaths and 76 million years of healthy life lost globally based on cardiorespiratory effects of PM_{2.5} (airborne particles with an aerodynamic diameter equal or smaller than 2.5 micrometer. These are also called respirable particles because they can enter the deep lung) (1). According to a 2016 report of the World Health Organization (WHO), air quality in most of the world is showing a worsening trend; and 9 out of 10 people live in places where ambient air quality cannot meet WHO air quality guideline values (2).

Historically, research on air pollution health effects in western industrialized countries has played a pivotal role in providing scientific basis for setting and revising air quality standards (3). Consequently, over the last 4 to 5 decades, air quality in these countries has continuously improved, leading to current levels that mostly below regulatory standards (4). Does this mean there is no longer a need to study air pollution? The answer became quite obvious when emerging evidence supports a link of air pollution with a range of adverse health effects such as lower birth weight (5), obesity (6,7), and autism (8). It is striking that many of these effects, along with well-established cardio-respiratory mortality and morbidity, have been observed at air pollution levels well below the current health-based standards or WHO guidelines.

At the other end of the global air pollution spectrum, PM_{2.5}, as an example air pollutant, has often reached alarming levels that forced school closures and air traffic delays in many parts of the developing world. In China, the severe air pollution problem has prompted large governmental funding for air pollution research. This situation is anticipated to continue in years to come, and that India and other countries may follow the suit. Such increased research efforts have generated and will continue to generate mounting number of research and review articles. Having served as an associate editor for three environmental science/health journals over the past 10 years, I have seen increased submissions of air pollution papers and felt the great need for additional venues to publish air pollution work.

Journal of Thoracic Disease (JTD) publishes a broad range of work including the health impact of environmental factors. In fact, the journal has published an air pollution special issue in 2015, for which I was privileged to serve as a co-guest editor. The papers published in this special issue have received impressive citations, which is one of the motivations for the *JTD* to have a dedicated section on Air Pollution. The goal of the Air Pollution Section is to serve as an effective and efficient venue where scientists and clinicians can publish their air pollution-related work. This section will feature original investigations, review articles, and opinion pieces (perspectives) addressing one or more of the following topics within the context of thoracic disease and pathophysiology: (I) epidemiologic association of air pollution and health outcomes; (II) toxicity of specific air pollutants or constituents; (III) preventive interventions aiming at reducing exposure and/or health effects; (IV) novel clinical or research methods; (V) socioeconomic, behavior, and genetic modifications of air pollution health effects. We invite authors to submit their contributions to the new Air Pollution Section of the *JTD*.

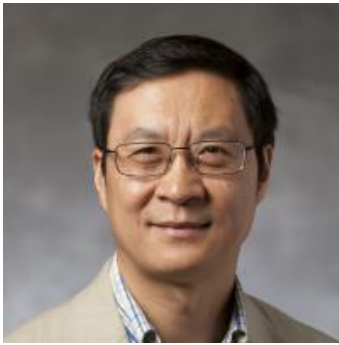
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