

EDITORIAL

Opportunities and challenges in exposure science

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In undertaking the position of Editor-in-Chief (EiC) of the *Journal of Exposure Science and Environmental Epidemiology* (JESEE), formerly the *Journal of Exposure Analysis and Environmental Epidemiology* (JEAEE), for the next 5 years, I am appreciative of all the fine work and devotion of my predecessors as EiC of JESEE and JEAEE during its first 20 years, that is, Myron Mehlman, Edo Pelizzari, and Dana Barr, as well as of all the past and present Associate Editors and members of the Editorial Board, too numerous to mention here. In doing so, I pledge to devote my best efforts to build on their accomplishments. In particular, my specific aims will be to:

(1) enhance the journal's stature (and associated impact factor) to increase its ranking among the journals devoted to topics in environmental health science;

(2) increase the journal's ability to bring better integration and greater recognition to the importance and contributions of advances in the interrelated disciplines of exposure science, environmental epidemiology, and risk assessment; and

(3) improve the journal's service and relevance to members of its sponsoring society, the International Society of Exposure Science (ISES).

I will build upon the solid editorial foundation that I inherit, and plan to expand the quality, impact, and range of topics addressed in its peer-reviewed papers.

In terms of the range of topics, my first priority is to expand the number of papers in the area of environmental epidemiology, a prominent part of the journal's title, but a topic area that has, to date, been minimally covered in terms of published papers. In soliciting more submissions in this topic area, I will especially seek papers in which the use of exposure-related environmental data was a prominent feature of any exposure-response relationships that were being reported.

I will also encourage submission of papers that seek to distinguish any reported associations between environmental quality data and health effects with respect to the environmental levels serving:

- (1) as markers for sources or other complex mixtures; or
- (2) as representing known or likely causal agents. Progress in, and appreciation of the field of exposure science will likely be dependent on moving the science beyond reliance on markers and surrogate indices of exposure to the identification and reliance on causal agents of biological responses.

In order to stimulate creative thinking and applications in exposure science, I plan to build on the past year's series of Exposure Science Digests, which have succinctly summarized

some important scientific developments and progress in the field by expanding it to all of the disciplines represented by our journal. This will be accomplished by soliciting more review papers from leading scientists within our disciplines, as well as from colleagues in allied fields, on challenges that we face in advancing:

- (1) the state-of-the-art of exposure science;
- (2) applications in environmental epidemiology and risk assessment;
- (3) the harnessing of recent technological advances in sensing and monitoring techniques and biological processes for characterizing exposures and delivered doses to people, laboratory animals, internal organs, cells, and subcellular organelles; and
- (4) the application of data processing, organization, storage, and management, thereby drawing a wider umbrella of writers and readers.

Such articles will thereby increase our readership and journal impact factor. Also, I would encourage readers to react to, and comment on, the applications and implications of the conclusions drawn in these invited papers, and to submit commentary and critiques as letters to the editor to be published in the Journal. Any dialog generated by the invited papers and response letters would be an interesting and hopefully stimulating feature of the Journal.

I also will need, in cooperation with an energized ISES Journal Advisory Committee, and the Journal's publisher Nature Publishing Group (NPG), to address the practical challenges of managing the strategic planning and day-to-day operation of the Journal.

I also intend to work closely with NPG and the ISES to develop strategies and publication models that provide alternatives that are complementary to the print journal. At the same time, we will be more selective in terms of subject area coverage and acceptance criteria, which will serve to enhance our reputation and impact among our members and other scientific peers.

You, the members of ISES, and other readers of the JESEE, can best help me in advancing the quality and impact of this Journal by submitting your best research and review manuscripts for peer review, by serving as peer reviewers and on advisory panels, and by citing papers that appeared in JESEE. Together, we can expect to enhance the contributions of JESEE and the science of exposure science.

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