

## MEDLINE AGAIN REJECTS *FLUORIDE*

**SUMMARY:** A new application to the US National Library of Medicine for inclusion of *Fluoride* in MEDLINE and its rejection are reported. After reviewing the explanation offered for the continued exclusion from MEDLINE of peer-reviewed reports published in *Fluoride* by well-qualified researchers, the editor and managing editor of *Fluoride* conclude that this negative decision appears to stem more from the unyielding endorsement of water fluoridation and dental fluoride use as completely safe by the US Department of Health & Human Services than from any appropriate objective criteria.

Keywords: Founding and history of *Fluoride*; MEDLINE exclusion of *Fluoride*; National Library of Medicine; US federal endorsement of water fluoridation.

In 1968 the distinguished Michigan allergist, George L Waldbott, MD (1898–1982), who in the 1950s had made pioneering discoveries of reversible toxic effects of fluoridated drinking water, founded *Fluoride* as a peer-reviewed scientific publication originally titled *Fluoride Quarterly Reports*.<sup>1-3</sup> With a highly qualified and later greatly enlarged multidisciplinary international editorial board of researchers, *Fluoride* is chartered as the official quarterly journal of the International Society for Fluoride Research and is dedicated to promoting the sharing of information from scientific research on inorganic and organic fluorides as they relate to their biological impact.

As many of our readers are aware, *Fluoride* came into being primarily because many mainstream journals wherein new biomedical and environmental fluoride research would have been expected to appear had closed their doors to publishing adverse fluoride findings for political policy rather than for valid scientific reasons.<sup>1-4</sup> However, in view of the pressing need for making this important health-related research work better known worldwide, it is puzzling (and troubling) that *Fluoride* is not indexed in MEDLINE, a publicly funded, government-run biomedical literature indexing operation to which many researchers regularly turn for presumably unfettered access to a broad base of legitimate research findings in that area.

Over the years a number of attempts have been made to have *Fluoride* included in MEDLINE,<sup>1-4</sup> the most recent application having been submitted toward the end of last year. In a letter dated March 30<sup>th</sup> of this year, Sheldon Kotzin, MLS, Associate Director, Library Operations, United States National Library of Medicine, reported that at a February 2009 meeting of the journal selection panel, *Fluoride* did not receive a high enough score for inclusion in MEDLINE. Mr Kotzin then suggested appointment of a three-member collateral review panel to re-examine the decision. For this purpose he invited the nomination of up to six qualified individuals who did not have any official connection with the journal and requested that three one-year sets of *Fluoride* be supplied for the panel. In response, we nominated four persons with substantial records in fluoride research and sent him three sets of the following four issues of *Fluoride*: 41(3), 41(4), 42(1), and 42(2). Some months later, in a letter dated August 28, 2009, Mr Kotzin

informed us that the panel he appointed had not recommended *Fluoride* for inclusion in the MEDLINE database.

Upon further inquiry we learned that none of the four individuals we had nominated was ever contacted to serve on the panel, and in a letter dated November 3, 2009, Mr Kotzin noted that he had made it clear from the start that he “may or may not contact them” and that “he was able to find competent reviewers on [his] own.” In response to our inquiry of September 28, 2009 for what specific shortcomings had caused the reviewers to exclude *Fluoride* from MEDLINE, Mr Kotzin replied on October 8<sup>th</sup> citing the following:

- Many animal model studies are insufficiently developed.
- Some human studies have end points that are vague and difficult to attribute unequivocally to the effects of fluoride.
- Some fetal studies lack IRB (Institutional Review Board) or other review board clearance.
- Many references are to other articles in *Fluoride*.
- No mention of conflict-of-interest or informed consent issues.
- Most articles seem to be pro-fluoride toxicity; there is insufficient balance among articles.

To many, these concerns would appear to be comparatively innocuous and even specious. Regarding them, we note:

- The collateral review panel cited no examples of animal models being insufficiently developed. In fact, the effects of fluoride in rats, for example, have been extensively studied.
- In the human studies published in *Fluoride*, there were no vague end points; in every case, the adverse effects were consistent with those expected from fluoride.
- The fetal studies were performed outside the USA where the IRB standard would not be applicable. *Fluoride* is an international journal and reports the research done in many countries. In the general information section, each issue of *Fluoride* carries the following statement:

The Editorial Officers of *Fluoride* strongly support the maintenance of the highest standards of animal care and the control of discomforts to animals in research. Authors must indicate whether their institutional and national guidelines for the care and use of laboratory animals were followed. When reporting experiments on human subjects, authors should indicate whether the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. JAMA 2000 Dec 20;284(23):3043-5).

- Citing articles published in *Fluoride* can hardly be construed as a scientific shortcoming when those articles are relevant to the report at hand. Since it is

devoted to publishing reports of fluoride research, *Fluoride* can hardly be faulted for self-citation, which occurs as expected in virtually all research journals.

- In regard to conflict-of-interest or informed consent issues, these matters are usually dealt with by authors in their covering letters of submission and/or in the acknowledgements section of their papers.

- As for “balance” between pro- and anti-fluoride articles, a list of pro-fluoride items published in *Fluoride* was in fact sent to Mr Kotzin and acknowledged by him. Why, however, should there even have to be any kind of “balance,” since no exclusively pro-fluoride dental and medical research journals are excluded from MEDLINE? By taking this position of excluding *Fluoride* because it is deemed as having “insufficient balance” between pro- and anti-F research reports, the collateral review panel reveals its own conflict-of-interest in standing by the official dental health policy endorsement of water fluoridation by the National Institutes of Health under which the National Library of Medicine operates as part of the US Department of Health & Human Services.

In making this decision not to index *Fluoride* in MEDLINE, the National Library of Medicine clearly appears to be out of step with the National Research Council of the US National Academies whose 2006 report on *Fluoride in drinking water: a scientific review of EPA’s standards*<sup>5</sup> contains far more citations (57) of research published in *Fluoride* than in any other journal among its 1077 references.<sup>4</sup> The NRC report calls for further research in many health-related areas including the effects of fluoride on fertility. The present issue of *Fluoride* has a pertinent review of fluoride toxicity in the male reproductive system,<sup>6</sup> but its not being indexed in MEDLINE will undoubtedly deter consideration of it among many biomedical researchers.

This non-indexing of *Fluoride* in MEDLINE obviously makes citing relevant research published in *Fluoride* less likely. For example, a recent report by Carvalho et al.<sup>7</sup> on the genetic susceptibility to dental fluorosis in mice did not cite a highly relevant study in *Fluoride* by Liu et al.<sup>8</sup> on prior related work in humans.

Although Mr Kotzin stated in his letter of October 8<sup>th</sup> that *Fluoride* was rejected for inclusion in MEDLINE because of professional shortcomings and insufficient scientific quality, the rejection really appears to stem from the fact that peer-reviewed reports in *Fluoride* by well-qualified researchers deal with toxic effects of fluoride that call into question the credibility of the unwavering endorsement of water fluoridation and dental fluoride use as completely safe by the US Department of Health & Human Services.

Shooting the messenger or acting like the proverbial ostrich with its head in the sand is not a constructive way to resolve this dilemma. If scientific research shows, for example, that fluoride, in doses comparable to those often being consumed by some individuals, can adversely affect areas of function such as male fertility,<sup>6</sup> then the focus should be on unrestricted dissemination of this information among researchers and on lowering fluoride intake to a safe level rather than suppressing access to reports containing the information.

As a courtesy to Mr Kotzin, we have invited him to send us his comments on this editorial report for publication together with it in this issue of *Fluoride*.

Albert W Burgstahler, Editor  
Bruce Spittle, Managing Editor

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**Note:** At the time of going to press, December 15, 2009, we have not received a reply from Mr. Kotzin to our invitation for comments, but some of our readers may wish to respond.