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LETTER TO THE EDITOR

CHEMICAL NOMENCLATURE IN THE COMPUTER AGE

Trivial names for chemical compounds are frequently useful, but a compound is occasionally christened with one that is indeed unfortunate. This is the case with the proposed "vanilmandelic acid (VMA)" for 3-methoxy-4-hydroxymandelic acid. It is misleading because it seems to be a misspelling of the vanillyl radical, and this has led other writers to derive similar terms, among which are "vanyl-mandelic acid," "vanillyl-mandelic acid," and "vanillin mandelic acid."

"Vanilmandelic acid" must be regarded as unacceptable because:

(a) It does not conform to the rules for regulating nomenclature;[5]

(b) It is not listed in *Index Medicus* (although it may be found there under "Mandelic Acid--Related compounds");

(c) *Chemical Abstracts* in 1961 used the term as a subject heading, but in 1962 used it only as a "see" reference to "Mandelic acid, 4-hydroxy-3-methoxy;"

(d) It is both misleading and confusing;

(e) It is unnecessary, inasmuch as abbreviations of the proper name (*e.g.*, MOMA[3, 4] or MHMA[2, 6]) may be used.

Derivatives of "vanilmandelic acid" are equally erroneous and unsuitable.

In a survey of *Index Medicus* (January 1960 to March 1963), 52 titles referring to 3-methoxy-4-hydroxymandelic acid were found. Of these, 30 used the proper chemical name alone, 12 used the proper name together with a parenthetical reference to the trivial name, and only 10 used "vanilmandelic acid" (or a derivative) without further elaboration. The term was originally proposed because of the "cumbersome nature of the proper name."[1] We submit that it is still more cumbersome to state the correct chemical name only to follow it with a misnomer.

The trivial name representing another degradation product of epinephrine metabolism, namely, homovanillic acid, is rational because the compound is a homolog of vanillic acid. It should be noted that 3-methoxy-4-hydroxymandelic acid is merely alpha-hydroxy-homovanillic acid. To call it this, however, would be a further compounding of drivel and a lack of foresight, inasmuch as the coinage of such terms could continue *ad infinitum* as other metabolic intermediates are identified in the future.

The tremendous proliferation of scientific literature since the end of World War II, particularly in periodicals, has made it virtually impossible for any specialist to read everything published in his field. Consequently, we must depend upon abstracts and indexes. The sheer bulk of the scientific literature, however, has posed problems for the publishers of these bibliographic tools, and so they are increasingly turning to computers as aids in production. No computer, however, is any better than its program, and ideally the best program is the simplest correct one. If constant coinage of new names is to be permitted, the computer will of necessity always be at least one step behind the latest terminologic innovations and thus some, perhaps important, references will be omitted from these publications.

Trivial terms have their value, but they have a built-in liability which can not be ignored. We know that we must depend upon adequate indexing of literature in order to keep abreast of current developments. We know that such indexing depends, at least in part, upon the terms used by the authors of journal articles. It follows, then, that we can best serve our own interests by studiously avoiding unnecessary, incorrect, or non-identifying names.

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and
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