BACTERIOLOGICAL NOMENCLATURE AND TAXONOMY

THE CORRECT SPELLING OF THE SPECIFIC EPITHET IN THE
SPECIES NAME *MICROCOCCUS LYSODEIKTICUS* FLEMING 1922

Preliminary Statement. File No. 6

Edited by R. E. Buchanan, Robert S. Breed and S. T. Cowan

The Editorial Board has prepared the following statement for the consideration of the members of the Judicial Commission, and in order to secure a preliminary ballot before a formal Opinion is prepared for final approval. The Editorial Board will be pleased to receive comments and criticisms from any person interested.

THE JUDICIAL Commission has been requested to issue an opinion concerning the spelling of the specific epithet in *Micrococcus lysodeikticus* Fleming 1922 (1). Is the spelling *lysodeikticus* correct or should the spell be changed the better to conform to the traditional classical rules for the transliteration of Greek into Latin?

The adjective *lysodeikticus* is derived from the Greek *λυσις* - setting free, dissolution *δεικτικός* - able to show. The two stems are joined by the connective vowel *o*.

There is no rule or recommendation in the International Bacteriological Code of Nomenclature specifying the exact method of transliterating Greek words into Latin. However, since the beginning of modern biological nomenclature transliteration according to classic precedent has been advocated. Linnaeus in his *Critica Botanica* (translation of Sir Arthur Hirt) ¶ 247 put the matter as follows:

Moreover, in every age, it has been the recognized practice amongst almost all Botanists, and even among the most eloquent Romans in ancient times, by Pliny and others, to write Greek names in Roman letters. When Greek names are transliterated into Latin, the equivalents used by the Romans from all time

must be adopted in representing the Greek letters. He gives specific rules for such transliteration, among them, and applicable to this case are the following:

The Greek diphthong *ou* becomes *o* occasionally *u*.
Final *os* becomes *us*.
κ becomes *c*.

These rules for transliteration are appended to the Zoological and Botanical Rules of Nomenclature.

An alternative nonclassical method of transliteration particularly into modern languages, is sometimes used as follows:

The Greek diphthong *ou* becomes *eu*.
Final *os* becomes *os*.
Kappa *κ* becomes *k*.

In the specific epithet *lysodeikticus*, the spelling of the first component, *lys-* conforms to the classic rules. The connecting vowel *o* is probably appropriate. Concerning connecting vowels in compound words, Recommendation 27h of the International Bacteriological Code of Nomenclature states:

In the formation of names or epithets composed of two or several roots taken from Latin or Greek, the vowel placed between the two roots becomes a connecting vowel, in Latin usually *o*, in Greek usually *o*.

It is of interest to note, however, that the Greeks in forming compounds with *lys-* as the first component used *o* as a connecting vowel and not *eu*. Probably either *o* or *eu* in the Latin transliteration should be regarded as acceptable.

(1) Fleming, Alexander. On a remarkable bacteriolytic element found in tissues and secretions.
Proc. Roy. Soc. London Sec. B
93: 306-317, 1922.

INTERNATIONAL BULLETIN

The classic transliteration yields the Latin forms *lyso-dicticus* or *lysiadicticus*. The alternative, nonclassic transliteration would give *lysodeiktikos*. It would seem that *lysodeikticus* is formed in part by following the classic formula, in part the nonclassic.

The rules and recommendations of the Bacteriological Code that may be pertinent are the following:

Rule 27. The original spelling of a name or epithet must be retained, except in the case of a typographical error, or of clearly unintentional orthographic error.

There is no evidence in the original publication that would seem to warrant the conclusion that the spelling *lysodeikticus* is the result of a typographical error, and no warrant therefore for changing the spelling on this basis.

Can the spelling *lysodeikticus* be regarded as a clearly unintentional orthographic error?

Note 4, to Rule 27 reads:

Specific and other epithets and names of Greek origin differing merely by having Greek and Latin terminations respectively are orthographic variants. Epithets bearing the same meaning and differing only slightly in form are considered as orthographic variants.

It would seem clear that the spellings, *lysodeikticus*, *lysiadicticus* and *lysodicticus* may be regarded as orthographic variants of the same word. But the use by an author of an orthographic variant does not prove that the nonclassic transliteration is the result of a clearly unintentional orthographic error.

Further, there seems to be no warrant in the Bacteriological Code for changing a spelling resulting from the use of nonclassical transliteration to a spelling in the classical tradition. The species name

Micrococcus lysodeikticus is widely accepted and used by bacteriologists.

Would stability and uniformity in bacteriological nomenclature be advanced by approval of one or more of the following:

1. Preparation of an Opinion by the Judicial Commission to the effect that an author's spellings arising from the ignoring of the classic transliteration from Greek to Latin are not to be changed unless there is clear evidence of a typographical error or of an unintentional orthographic error.
2. A clear statement of the rules imposed by classic tradition for the transliteration of Greek to Latin should be prepared to be considered by the Judicial Commission for recommendations as an appendix to the International Bacteriological Code of Nomenclature.
3. A draft should be prepared of a Recommendation urging all authors to follow the classic tradition in the transliteration of Greek words into Latin form for use in naming of taxonomic groups, such draft to be considered by the Judicial Commission for recommendation for inclusion in the International Bacteriological Code of Nomenclature.
4. A draft should be prepared of a Rule authorizing the correction of names derived from the Greek and not transliterated in accordance with the classic tradition, such rules to be considered by the Judicial Commission for recommendation for inclusion in the International Bacteriological Code of Nomenclature.