NOTE**Proposal to change Rule 18a, Rule 18f and Rule 30 to limit the retroactive consequences of changes accepted by the ICSB**

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In its last report, the International Committee on Systematic Bacteriology (ICSB) (Labeda, 1997a, b) accepted changes to Rule 30 and made changes to Rule 18a and Rule 18f. The Bacteriological Code (Lapage *et al.*, 1992) states in Rule 2, that 'the Rules of this Code are retroactive, except where exceptions are specified.' A direct consequence of this is that changes to Rule 18a and Rule 18f affect names placed on the 'Approved Lists' and the 'Validation Lists' up to April 1997, which now read:

'Rule 18a

Whenever possible, the type of a species or subspecies is a designated strain. The type strain is made up of living cultures of an organism which are descended from a strain designated as the nomenclatural type. The strain should have been maintained in pure culture and should agree closely in its characters with those in the original description (see Chapter 4C).

The type strain may be designated in various ways (see Rule 18b, c and d).'

'Rule 18f

If a description or illustration constitutes, or a dead preserved specimen has been designated as, the type of a species (Rule 18a, para 3) and later a strain of this species is cultivated, then the type strain may be designated by the person who isolated the strain or by a subsequent author.'

A direct consequence is that Rule 18a not longer permits the use of 'a description, preserved specimen, or illustration' to serve as the type, thus making all names based on this type of material illegitimate. This would include members of several genera, including,

for example the genus *Treponema*. The type species of the genus *Treponema* is *Treponema pallidum*, for which no type strain is designated. In its present form, Rule 18a, which is retroactive to 1 January 1980 would make the name *Treponema pallidum* illegitimate, which would also make the genus *Treponema* illegitimate. This is certainly not the intention of the ICSB. In order to correct this mistake the following correction is proposed:

'Rule 18a

Whenever possible, the type of a species or subspecies is a designated strain. The type strain is made up of living cultures of an organism which are descended from a strain designated as the nomenclatural type. The strain should have been maintained in pure culture and should agree closely in its characters with those in the original description (see Chapter 4C).

The type strain may be designated in various ways (see Rule 18b, c and d).

(1) Until 31 December 1999, for a species which has not so far been maintained in laboratory culture or for which a type strain does not exist, a description, preserved specimen, or illustration (see also Rule 18f) may serve as the type.

Example: Non-cultivated, *Oscillospira guilliermondii* Chatton and Perard 1913.

(2) As of 1 January 2000, a description, preserved (non-viable) specimen, or illustration may not serve as the type.'

Rule 18f may then be re-used in its entirety, with a slight modification:

'Rule 18f

If a description or illustration constitutes, or a dead preserved specimen has been designated as, the type of a species [Rule 18a, (1)] and later a strain of this species

It should be noted that point c) on p. 599 (Labeda, 1997b) should read: 'delete the last paragraph from Rule 18a and the last sentence from Rule 18f'.

is cultivated, then the type strain may be designated by the person who isolated the strain or by a subsequent author. This type strain shall then replace the description, illustration or preserved specimen as the nomenclatural type. The designation of a type strain in this manner must be published in the IJSB, the authorship and date of priority of publication being determined by the effective and valid publication of the name by the original authors (see Rule 24b).'

A similar problem affects Rule 30, which now reads:

'For the name of a species to be validly published it must conform with the following conditions.

(1) It must be published in conformity with Rules 27 and 28b.

(2) It must be published as a binary combination consisting of a generic name followed by a single specific epithet (see Rule 12a).

(3) The description must include a designation of a type strain, and, if the bacterium is cultivable, a living culture of that strain must be deposited in at least one of the permanently established culture collections, from which subcultures must be available. The designation(s) allotted to the strain by the culture collection(s) must be quoted in the published description.

(4) Patented bacteria may serve as type species and must also be deposited as in (3) above, but if a patent is not yet awarded or not yet laid open, the publication of a name and a description must be deferred until the patent is awarded or subcultures made available. Any type strain for which a patent is pending must also be so identified when the name is proposed.'

Rule 30 (3) now does not cater for cases, such as *Treponema pallidum*, where a type strain is not designated, which would also make this species illegitimate. It is, therefore, suggested that the following changes be made to Rule 30 (3)

'(3a) Up to 31 December 1999, before publication of the name of a new species, a culture of the type strain (or, if the species is non-cultivable, type material, a photograph, or an illustration) should be deposited in at least one of the permanently established culture collections from which it would be readily available. The designation allotted to the strain by the culture collection should be quoted in the published description.

(3b) As of 1 January 2000, the description must include a designation of a type strain, and a viable culture of that strain must be deposited in at least one of the permanently established culture collections, from which subcultures must be available. The designation(s) allotted to the strain by the culture collection(s) must be quoted in the published description.'

Rewording of Rules 18a, 18f and 30, and limiting their action, allows the Code to take into account recent developments in the description of new taxa, but it prevents the undesirable instability caused by allowing these Rules to be retroactive.

References

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