

International Committee on Systematics of Prokaryotes

5th January 2020

To the members of the International Committee on Systematics of Prokaryotes

In keeping with Article 4 of the ICSP Statutes, the Editorial Board of the International Code of Nomenclature of Prokaryotes (ICNP) is conducting an open electronic meeting concerning proposals for changes in the ICNP.

The first phase of the meeting will take place from January 5, 2020, until March 1, 2020. It is intended to allow open discussion of the proposals as an email chain among the members of the ICSP and other interested parties. Comments may be made by the 'reply-all' option on your email server. Comments should be less than 500 words in length and should identify the author's name(s) and affiliation(s). Comments should be respectful, and ad hominem comments will be deleted from the record. As comments accumulate, the Editorial Board will transfer them to the ICSP website, and the edited comments will serve as the minutes of the meeting. Please feel free to add interested parties to the email recipient list and solicit comments from interested parties outside the ICSP.

The second phase of the meeting will consist of voting and will take place from March 1 to March 31, 2020. Only members of the ICSP may vote.

The issues for the current discussion are the "Modest proposals to expand the type material for naming of prokaryotes" made by Whitman (2016; IJSEM 66: 2018-2112; <u>https://doi.org/10.1099/ijsem.0.000980</u>) and a related proposal by Whitman et al. (2019; IJSEM 69: 2174-2175; <u>https://doi.org/10.1099/ijsem.0.003419</u>) concerning granting priority to *Candidatus* names. To simplify the discussion, the ICSP and contributing colleagues are asked to give particular consideration to the following statements, which represent the central concepts. Should they be passed at the voting stage, other rules will be changed as described in Whitman (2016) and Whitman et al. (2019) to make the remainder of the Code consistent with these changes.

**Proposal 1** (Whitman 2016). Extend the nature of the type acceptable for valid publication of a species or subspecies name to allow the use of complete or partial genome sequences as type (Whitman 2016). The new rules would be worded [new text is underlined]:

**Rule 18a.** The type of a species or subspecies must unambiguously identify the taxonomic group and is a designated strain or other material. Whenever possible, the type of a species or subspecies is a designated strain.

(3) [first section] As from 1 April 2020\*, sequences of genomic DNA may also serve as the type when it unambiguously identifies the species. When possible, it should be a high quality draft or better genome sequence.

**Rule 30.3.c.** [new rule] When a sequence is the type, the accession number in a publically available database or the sequence must be given. It is recommended that, when possible, a sample of the DNA be deposited in at least two publically accessible service collections in different countries and the catalog numbers be indicated.

\*The original date of January 2016 proposed in Whitman (2016) is changed to reflect the time necessary to bring this matter to a vote. All of the other proposals in Whitman (2016) will be taken as originally worded.

**<u>Proposal 2</u>** (Whitman 2016). Articulates a general concept for what can serve as type for a species.

**Rule 18a (3).** [second section] <u>As new methods are developed, they may serve as the type</u> material so long as they unambiguously identify the species or subspecies and can be readily <u>archived and compared.</u>

**Proposal 3** (Whitman 2016). Allows valid publication of the name of a genus in the absence of a type species if the type is too ambiguous to circumscribe a species.

The rule would be:

"Rule 20a. The nomenclatural type (see Rule 15) of a genus or subgenus is the type species or the sequence of one or more genes that unambiguously identifies the genus or subgenus. The type species is the single species or one of the species included when the name was originally validly published. Only species whose names are legitimate may serve as types."

**Proposal 4** (Whitman et al. 2019). Upon acceptance of Proposal 1, the priority of the names of *Candidatus* taxa published before 1 April 2020\* which are otherwise in accordance with the rules of the Code will have priority based upon their date of publication in the IJSEM unless a synonymous name already exists based upon deposition of type cultures.

Whitman et al. (2019) also provides a simple nomenclature for identifying the nature of the type material:

'When the type is a culture, the superscript "T" will be used immediately following the name or strain identifier. If the type is a sequence, the superscript "Ts" will be used. If the type is a description, preserved specimen or illustration, the superscript "Td" will be used. If a representative of a taxon is brought into culture, the type strain is then designated as described in Rule 18f. The name may be emended by the new authors, and the superscript "Ts" or "Td" is replaced by the superscript "T".

\*The original date of 1 January 2020 is changed to reflect the time necessary to bring this matter to a vote.

## For further guidance, major publications that discuss these proposals include:

## (in favour)

Whitman 2015. Syst. Appl. Microbiol. 38: 217-222 (https://doi.org/10.1016/j.syapm.2015.02.003)

Konstantinidis et al. 2017. ISME J 11: 2399-2406 (https://www.nature.com/articles/ismej2017113)

Rossello-Mora and Whitman 2019. Syst. Appl. Microbiol. 42: 5-14 (https://doi.org/10.1016/j.syapm.2018.07.002)

## (against)

Overmann et al. 2019. Syst. Appl. Microbiol. 42: 22-29. (<u>https://doi.org/10.1016/j.syapm.2018.08.009</u>)

Bisgaard et al. 2019. Diagn. Microbiol. Infect. Dis. 95: 102-103. (https://doi.org/10.1016/j.diagmicrobio.2019.03.007)