Register list for Sumerlaea chitinivorans sp. nov., and its lineage in the phylum Sumerlaeota

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Abstract

The phylum *Sumerlaeota* is defined on a phylogenetic basis by comparative 16S rRNA and genome sequence analysis of *Sumerlaea chitinivorans* BY40, Candidate division BRC1 bacterium HGW-BRC1-1, BRC1 bacterium SCGC AAA252-M09, BRC1 bacterium SCGC AAA257-C1, candidate division BRC1 bacterium SM23 51, and multiple uncultured representatives, inclusive of the formerly identified candidate division BRC1.

Phylum *Sumerlaeota*

Etymology
[Su.mer.lae.o'ta] **N.L. fem. n.** *Sumerlaea*, referring to the type genus *Sumerlaea*; *-ota*, ending to denote a phylum; **N.L. neut. pl. n.** *Sumerlaeota*, the *Sumerlaea* phylum

Nomenclatural type
Genus *Sumerlaea*

Description
The phylum *Sumerlaeota* is defined on a phylogenetic basis by comparative 16S rRNA and genome sequence analysis of *Sumerlaea chitinivorans* BY40,Candidate division BRC1 bacterium HGW-BRC1-1, BRC1 bacterium SCGC AAA252-M09, BRC1 bacterium SCGC AAA257-C1, candidate division BRC1 bacterium SM23 51, and multiple uncultured representatives, inclusive of the formerly identified candidate division BRC1.

Classification
Bacteria » *Sumerlaeota*

References
Effective publication: Kadnikov et al., 2019 [1]

Registry URL
https://seqco.de/i:42441

Class *Sumerlaeia*

Etymology
[Su.mer.lae'i.a] **N.L. fem. n.** *Sumerlaea*, referring to the type genus *Sumerlaea*; *-ia*, ending to denote a class; **N.L. neut. pl. n.** *Sumerlaeia*, the *Sumerlaea* class

Nomenclatural type
Genus *Sumerlaea*

Description
The description is the same as that for the family *Sumerlaeaceae*.

Classification
Bacteria » *Sumerlaeota* » *Sumerlaeia*

References
Effective publication: Kadnikov et al., 2019 [1]

Registry URL
https://seqco.de/i:42442

Order *Sumerlaeales*

Etymology
[Su.mer.lae.a'les] **N.L. fem. n.** *Sumerlaea*, referring to the type genus *Sumerlaea*; *-ales*, ending to denote an order; **N.L. fem. pl. n.** *Sumerlaeales*, the *Sumerlaea* order

Nomenclatural type
Genus *Sumerlaea*

Description
The description is the same as that for the family *Sumerlaeaceae*. The type genus is *Sumerlaea.*

Classification
Bacteria » *Sumerlaeota* » *Sumerlaeia* » *Sumerlaeales*

References
Effective publication: Kadnikov et al., 2019 [1]

Registry URL
https://seqco.de/i:42443

Family *Sumerlaeaceae*

Etymology
[Su.mer.lae.a'ce.ae] **N.L. fem. n.** *Sumerlaea*, referring to the type genus *Sumerlaea*; *-aceae*, ending to denote a family; **N.L. fem. pl. n.** *Sumerlaeaceae*, the *Sumerlaea* family

Nomenclatural type
Genus *Sumerlaea*

Description
The family *Sumerlaeaceae* is defined on a phylogenetic basis by comparative 16S rRNA sequence analysis of *Sumerlaea chitinivorans* BY40 and uncultured representatives detected in various environments. The type genus is *Sumerlaea*.

Classification
Bacteria » *Sumerlaeota* » *Sumerlaeia* » *Sumerlaeales* » *Sumerlaeaceae*

References
Effective publication: Kadnikov et al., 2019 [1]

Registry URL
https://seqco.de/i:42444

Genus *Sumerlaea*

Etymology
[Su.mer.lae'a] **N.L. fem. n.** *Sumerlaea*, genus named for Sumerla, the underground goddess in Slavic mythology

Nomenclatural type
Species *Sumerlaea chitinivorans*[Ts]

Description
Not cultivated. Inferred to be facultatively anaerobic, obligate organotroph, obtains energy by fermentation, aerobic or anaerobic respiration, and able to use starch and chitin as a growth substrates. Represented by complete genome (acc. no. CP030759) obtained from metagenome of a deep subsurface thermal aquifer in Western Siberia, Russia.

Classification
Bacteria » *Sumerlaeota* » *Sumerlaeia* » *Sumerlaeales* » *Sumerlaeaceae* » *Sumerlaea*

References
Effective publication: Kadnikov et al., 2019 [1]

Registry URL
https://seqco.de/i:39036

Species *Sumerlaea chitinivorans*[Ts]

Etymology
[chi.ti.ni.vo'rans] **N.L. neut. n.** *chitinum*, chitin; **L. fem. pres. part.** *vorans*, devouring; **N.L. fem. part. adj.** *chitinivorans*, chitin devouring

Nomenclatural type
Genome sc|0006249 [Ts]

Description
Not cultivated. Inferred to be facultatively anaerobic, obligateorganotroph, obtains energy by fermentation, aerobic or anaerobic respiration, and able to use starch and chitin as a growth substrates. Represented by complete genome (acc. no. CP030759) obtained from metagenome of a deep subsurface thermal aquifer in Western Siberia, Russia

Classification
Bacteria » *Sumerlaeota* » *Sumerlaeia* » *Sumerlaeales* » *Sumerlaeaceae* » *Sumerlaea* » *Sumerlaea chitinivorans*[Ts]

References
Effective publication: Kadnikov et al., 2019 [1]
Assigned taxonomically: Kadnikov et al., 2019 [1]

Registry URL
https://seqco.de/i:42445

References

1. Kadnikov et al. (2019). Phylogeny and physiology of candidate phylum BRC1 inferred from the first complete metagenome-assembled genome obtained from deep subsurface aquifer. *Systematic and Applied Microbiology*. DOI: 10.1016/j.syapm.2018.08.013

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List **seqco.de/r:tjyokt4b** submitted by **Ravin, Nikolai** and including 6 new names has been successfully validated.

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