Genomic and physiological characterization of the Verrucomicrobia isolate Geminisphaera colitermitum gen

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Second Correction for Wertz et al., “Genomic and Physiological Characterization of the *Verrucomicrobia* Isolate *Geminisphaera colitermitum* gen. nov., sp. nov., Reveals Microaerophily and Nitrogen Fixation Genes”

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Volume 78, no. 5, p. 1544–1555, 2012, [https://doi.org/10.1128/AEM.06466-11](https://doi.org/10.1128/AEM.06466-11), and volume 83, no. 13, e00987-17, 2017, [https://doi.org/10.1128/AEM.00987-17](https://doi.org/10.1128/AEM.00987-17). The name *Diplosphaera*, the proposed genus name for *Verrucomicrobia* strain TAV2, was previously used for a microalga. Subsequently, we corrected the genus name to *Didymococcus*. Although we consulted with nomenclature authorities before the original publication, we learned recently that this corrected name also is not appropriate. In order to maintain the correct taxonomy in the literature, the revised genus and species names for the organism in our paper are described below.

Page 1544: The title should read as shown above.

Page 1544, abstract, lines 13 and 14: “*Didymococcus colitermitum*” should read “*Geminisphaera colitermitum*.”

Pages 1545, 1547, 1549, 1551, 1553, and 1555, running title: “*Didymococcus colitermitum*” should read “*Geminisphaera colitermitum*.”

Page 1553, column 1, paragraph 2: The heading for this section should be “Proposal for a new taxon, *Geminisphaera colitermitum* gen. nov., sp. nov.” and “*Didymococcus colitermitum*” should read “*Geminisphaera colitermitum*.”

Page 1553, column 1: Paragraphs 3 and 4 should read as follows:

**Description of *Geminisphaera* gen. nov.** *Geminisphaera* gen. nov. (Ge.mi.ni.sphae’ra. L. adj. geminus, twin-born, twin; L. fem. n. sphaera, globe, sphere; N.L. gen. pl. n. Geminisphaera, twin sphere). The genus description is, at present, the same as for the type species, *Geminisphaera colitermitum*.

**Description of *Geminisphaera colitermitum* sp. nov.** *Geminisphaera colitermitum* sp. nov. (co.li.ter’mi.tum. L. n. colon -i, colon, part of the large intestine; L. n. termes -itis, wood-eating worm, termite; N.L. gen. pl. n. colitermitum, of the gut of termites). Cells are coccoid (0.25 μm to 0.5 μm in diameter) and occur almost exclusively in pairs, with a Gram-negative cell wall morphology that includes an outer membrane. Cells are nonmotile, obligate aerobes and are microaerophilic. The shortest generation times occur in liquid medium under an atmosphere of 2 to 8% O2 (balance N2). On solid R2A medium, colonies are 2 to 4 mm in diameter, have an entire margin and a low convex, mucoid morphology, and are cream colored. Cells do not possess catalase or NADH/NADPH peroxidase activity. Nitrogenase activity is inferred through growth on nitrogen-free medium. Growth occurs in liquid media between 15 and 35°C (optimum, 30°C); there is no growth at 37°C or 4°C. Growth occurs at a pH range of 5.5 to 7.5.
(optimum, 7.0); there is no growth at a pH of \( \leq 5 \) or \( \geq 8 \). Substrates utilized as energy sources include starch, D-cellobiose, D-maltose, D-glucose, D-galactose, and one or more components present in yeast extract. Microcrystalline cellulose, methylcellulose, carboxy methylcellulose, xylan, D-fructose, D-mannose, D-trehalose, sucrose, D-ribose, D-xylene, L-arabinose, D-mannitol, D-sorbitol, D-raffinose, DL-lactate, sodium pyruvate, sodium fumarate, sodium acetate, allantoine, D-glucuronic acid, D-galacturonic acid, D-gluconic acid, xanthine, tannic acid, resorcinol, vanillic acid, sodium benzoate, and trimethylbenzoate are not utilized. The genome of type strain TAV2 is 5.2 Mb in size, contains 60.5 mol% G+C, and possesses one 16S rRNA gene copy. The type strain, isolated from the guts of *Reticulitermes flavipes* (Kollar) collected in Dansville, MI, is TAV2 (ATCC BAA-2264; DSM 25453; NRRL B-59605).