

## Erratum to: *Sphingobacterium pakistanensis* sp. nov., a novel plant growth promoting rhizobacteria isolated from rhizosphere of *Vigna mungo*

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### Erratum to: Antonie van Leeuwenhoek DOI 10.1007/s10482-013-0077-0

The spelling of the town “Taejon” in the affiliation of authors Y. Sin, J. Paek and Y. H. Chang is wrong. The correct spelling of the town is “Daejeon”.

Subsequent to the publication of the above paper it has been brought to our attention that the Latin species epithet proposed in the above paper for the taxon represented by strain NCCP-246<sup>T</sup> is not grammatically

correct: as *Sphingobacterium* has the neuter gender, the adjective must also be in the neuter gender (Rule 12c(1) of the International Code of Nomenclature of Bacteria). Therefore “*Sphingobacterium pakistanensis*” should have been proposed as *Sphingobacterium pakistanense*. We here propose the corrected name and provide an emended species description as follows:

### Description of *Sphingobacterium pakistanense* sp. nov.

*Sphingobacterium pakistanense* (pa.kis.tan.en'se. N.L. neut. adj. pakistanense, pertaining to Pakistan, where the organism was isolated).

Cells are Gram negative, strictly aerobic, non-motile, sometime occurs in pairs and short rod (1.7–3.3 µm) in appearance. The colonies are round with entire margins, slightly convex in elevation, having opaque surface and off white in colour, which turns yellowish white after few days. Two days old culture on TSA agar plates produce colonies of 2–3 mm diameter and have butyrous (butter like) texture. Cells grow on TSA agar plates at 16–37°C (optimum 32°C) and in TSB medium with a pH ranges of 5–8 (optimum growth occurs at pH 7). Can tolerate 0–4 % (w/v) NaCl but no growth is observed with 5 % NaCl. Negative for production of indole acetic acid and positive for the *nifH* gene. Can solubilize mineral phosphorus from tri-calcium phosphate, which is relative insoluble. Positive for urease, catalase, Voges-Proskauer reaction, hydrolysis of

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2-nitrophenyl- $\beta$ -D-galactopyranoside and can reduce nitrate. Negative for oxidase, hydrolysis of gelatin, arginine dihydrolase, lysine- and ornithine-decarboxylases, citrate utilization,  $H_2S$  production, tryptophane deaminase and indole production. No fermentation of D-glucose, D-mannitol, inositol, D-sorbitol, L-rhamnose, D-sucrose, D-malibiose, amygdalin and L-arabinose. Acid is produced from D-glucose, D-fructose, D-mannose, esculin, D-maltose, D-arabinose, D-saccharose (sucrose), D-rafinose, amidon (starch), D-celiobiose, D-lactose, D-melibiose, D-trehalose, inulin, glycogen (weak), L-arabinose (weak), amygdalin (weak), arbutin (weak), salicin (weak), D-melezitose (weak), gentiobiose (weak), D-turanose (weak), L-fucose (weak), *N*-acetyl glucosamine (weak), D-xylose (weak), D-galactose (weak), methyl- $\alpha$ -D-mannopyranoside and methyl- $\alpha$ -D-glucopyranoside; but negative for acid production from glycerol, erythritol, D-ribose, L-xylose, D-adonitol, methyl- $\beta$ -D-xylopyranoside, dulcitol, inositol, D-mannitol, D-sorbitol, xylitol, D-lyxose, tagatose, D-fucose, D,L-arabitol, L-sorbose, L-rhamnose, potassium gluconate, potassium 2-keto-gluconate, and potassium 5-keto-gluconate. Positive for oxidation/reduction activity for the substrates:  $\alpha$ -cyclodextrin, dextrin, *N*-acetyl-D-glucosamine, D-cellobiose, D-fructose, gentiobiose,  $\alpha$ -D-glucose,  $\alpha$ -D-lactose, lactulose, maltose, D-mannose, D-melibiose,  $\beta$ -methyl-D-glucoside, sucrose, D-trehalose, turanose,

pyruvic acid methyl ester, succinic acid mono-methyl ester, acetic acid, L-alanyl-glycine, L-serine, L-threonine, glycerol, tween 80, L-alabinose, L-fructose, D-galactose, D-raffinose,  $\alpha$ -keto-butyric acid, D,L-lactic acid, L-asparagine, L-proline, and D,L, $\alpha$ -glycerol phosphate; but negative for the substrates: glycyl-L-glutamic acid, *N*-acetyl-D-galactosamine, L-rhamnose, D-galacturonic acid, uridine,  $\alpha$ -D-glucose-1-phosphate, D-glucose-6-phosphate, L-aspartic acid, L-glutamic acid, and inosine. Strongly positive enzyme activity was observed for alkaline phosphatase, acid phosphatase, naphthol-As-BI-phosphohydrolase, *N*-acetyl- $\beta$ -glucosaminidase; positive for valine arylamidase,  $\alpha$ -mannosidase,  $\beta$ -glucosidase, esterase lipase (C-8); weak enzyme activity for  $\alpha$ -glucosidase,  $\alpha$ -galactosidase,  $\alpha$ -fucosidase, whereas negative for all other enzymes of the API-Zym gallery (bioMérieux, France). Major cellular fatty acids are summed feature 3 as defined by the MIDI system ( $C_{16:1}\omega 7c/C_{16:1}\omega 6c$  or  $C_{16:1}\omega 6c/C_{16:1}\omega 7c$ ), iso- $C_{15:0}$ ,  $C_{16:0}$ ,  $C_{17:0}$  cyclo and  $C_{16:0}3-OH$ . The major respiratory quinone is MK-7. The DNA G+C content of the type strain is 39.2 mol%.

Strain NCCP-246<sup>T</sup> (= JCM18974<sup>T</sup> = KCTC 23914<sup>T</sup>) is the type strain, which was isolated from a rhizospheric soil sample of *Vigna mungo* roots collected from the Research Farm area of Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi, Pakistan.