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*Mycobacterium komaniense* sp. nov., a rapidly growing nontuberculous  
*Mycobacterium* species detected in South Africa

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#### ABSTRACT:

Some species of non-tuberculous mycobacteria (NTM) have been reported to be opportunistic pathogens of animals and humans. Recently there has been an upsurge in the number of cases of NTM infections, such that some NTM species are now recognized as pathogens of humans and animals. From a veterinary point of view, the major significance of NTM is the cross-reactive immune response they elicit against *Mycobacterium bovis* antigens, leading to misdiagnosis of bovine tuberculosis. Four NTM isolates were detected from a bovine nasal swab, soil and water, during an NTM survey in South Africa. These were all found using 16S rRNA gene sequence analysis to be closely related to *Mycobacterium moriokaense*. The isolates were further characterised by sequence analysis of the partial fragments of hsp65, rpoB and sodA. The genome of the type strain was also elucidated. Gene (16S rRNA, hsp65, rpoB and sodA) and protein sequence data analysis of 6 kDa early secretory antigenic target (ESAT 6) and 10 kDa culture filtrate protein (CFP-10) revealed that these isolates belong to a unique *Mycobacterium* species. Differences in phenotypic and biochemical traits between the isolates and closely related species further supported that these isolates belong to novel *Mycobacterium* species. We proposed the name *Mycobacterium komaniense* sp. nov. for this new species. The type strain is GPK 1020T (=CIP 110823T=ATCC BAA-2758).