

At one time, most of the species belonging to the genera *Brevundimonas*, *Burkholderia*, *Ralstonia*, and *Acidovorax* were members of the genus *Pseudomonas*. These organisms have been categorized into five unrelated rRNA homology groups through ribosomal ribonucleic acid (rRNA)–deoxyribonucleic acid (DNA) hybridization studies. *Burkholderia* spp. belong to tRNA homology group III (along with genera *Comamonas*, *Delftia*, *Hydrogenophaga* spp.); *Brevundimonas* spp. Phenotypically, they are all aerobic, non-spore-forming, straight or slightly curved, slender, gram-negative bacilli with cells that range from 1 to 5 μm long and 0.5 to 1 μm wide. Members of these genera use a variety of carbohydrate, alcohol, and amino acid substrates as carbon and energy sources. Organisms in these genera have many similar phenotypic characteristics but are genetically distinct. *Stenotrophomonas* spp. make up rRNA homology group IV (and for completeness, *Stenotrophomonas* spp. All species except *Burkholderia mallei* are motile, having one or several polar flagella. *Burkholderia* and *Ralstonia* spp. belong to rRNA homology group I; *Acidovorax* spp. *Pseudomonas* spp. belong to group V). Although they are able to survive and