

Updated Version of the *Burkholderia cepacia* Complex Experimental Strain Panel

The *Burkholderia cepacia* complex consists of nine closely related species: *Burkholderia cepacia* genomovars I and VI, *Burkholderia multivorans* (genomovar II), *Burkholderia cenocepacia* (genomovar III), *Burkholderia stabilis* (genomovar IV), *Burkholderia vietnamiensis* (genomovar V), *Burkholderia ambifaria* (genomovar VII), *Burkholderia anthina* (genomovar VIII), and *Burkholderia pyrrocinia* (genomovar IX) (2, 9, 10). Despite the advances that have been made in the understanding of the taxonomy and epidemiology of this group, infections of the respiratory tract with *B. cepacia* complex organisms still have a considerable impact on morbidity and mortality in cystic fibrosis (CF) patients (4, 5, 6). *B. cepacia* complex strains have also attracted attention as possible biocontrol and bioremediation agents that could be used as antagonists of soil-borne plant pathogens, as plant growth-promoting agents, and for the bioremediation of various recalcitrant xenobiotics (3, 8). To aid in identification, epidemiological tracking, and virulence studies, a set of strains representative of the first five known genomovars of the *B. cepacia* complex was assembled (7). A review of the literature reveals that this panel has been used extensively in various areas of research (for a complete list of publications using this panel, see <http://go.to/cepacia> and follow the link to *B. cepacia* experimental strain panel). Since its assembly, however, several additional species within the *B. cepacia* complex have been described, and therefore we propose to update the previously described panel.

Strains were selected such that they represent the currently known diversity in isolation sources and geography and the intraspecies diversity. The strains included in the expanded panel (Table 1) were cultured as described previously (7). All isolates

were identified to the species level using a polyphasic approach (2). To avoid the inclusion of members of the same clone, all strains were typed using previously described typing methods (1).

Molecular typing showed that all strains had clearly different fingerprint patterns.

Four *B. cepacia* genomovar VI strains are included in the panel. Strains CEP021 and AU0645 were isolated from CF patients in the United States, while E12 was isolated from a CF patient in the United Kingdom. Strain STM1441 was isolated from the rhizosphere of *Alysicarpus glumaceus* in Senegal.

Three *B. ambifaria* strains are included in the panel. DNA-based fingerprinting showed that all possessed a unique genetic fingerprint. The type strain of *B. ambifaria*, AMMD^T, was isolated from the rhizosphere of peas (*Pisum sativum* L.) in the United States. It is one of the most studied biocontrol isolates. *B. ambifaria* ATCC 53266 is another strain with possible biocontrol applications; it was isolated from corn roots in the United States. Strain CEP0996 was isolated from the sputum of a CF patient in Australia.

Four *B. anthina* strains are included. The type strain W92^T was isolated from the rhizosphere of a houseplant in Nashville, Tenn., in 1997, while strain C1765 was isolated from the respiratory tract of a CF patient in the United Kingdom. J2552 was isolated from the rhizosphere of *Carludaucas palmata* in the tropical aquatic house of a botanic garden in the United Kingdom. Isolate AU1293 was isolated from the respiratory tract of a CF patient in the United States; this patient has been chronically infected with this organism for over 2 years.

Four *B. pyrrocinia* isolates are included in the panel. The type strain ATCC 15958^T was isolated from soil. *B. pyrrocinia* ATCC 39277 was isolated from cornfield soil in the United States. Isolate BC011 was isolated from a blackwater stream in the United States. Isolate C1469 was isolated from a CF patient attending a treatment center in the United Kingdom.

All strains were deposited in and can be obtained from the BCCM/LMG Bacteria Collection, Ghent, Belgium. On the website of the International *Burkholderia cepacia* Working Group (<http://go.to/cepacia>), all available information on the updated *B. cepacia* complex experimental strain panel will be compiled.

TABLE 1. Update of the *B. cepacia* complex strain panel

Species and strain name	Accession no. from BCCM/LMG Culture Collection	Source and location
<i>B. cepacia</i> (genomovar VI)		
AU0645	LMG 18943	CF patient (United States)
CEP021	LMG 21819	CF patient (United States)
E12	LMG 21820	CF patient (United Kingdom)
STM1441	LMG 21443	Rhizosphere (Senegal)
<i>B. ambifaria</i> (genomovar VII)		
AMMD ^T	LMG 19182 ^T	Soil (United States)
ATCC 53266	LMG 17828	Soil (United States)
CEP0996	LMG 19467	CF patient (Australia)
<i>B. anthina</i> (genomovar VIII)		
W92 ^T	LMG 20980 ^T	Soil (United States)
C1765	LMG 20983	CF patient (United Kingdom)
J2552	LMG 16670	Rhizosphere (United Kingdom)
AU1293	LMG 21821	CF patient (United States)
<i>B. pyrrocinia</i> (genomovar IX)		
ATCC 15958 ^T	LMG 14191 ^T	Soil (Japan)
ATCC 39277	LMG 21822	Soil (United States)
BC011	LMG 21823	Water (United States)
C1469	LMG 21824	CF patient (United Kingdom)

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