

**Table S1: Total mortality\* rates of NTHi/*Pa* infected BALB/c mice**

	Infection Group	Total (Deaths)	Percent Mortality
WT	Control	4 (0)	0.0%
	NTHi only (~10 <sup>8</sup> )	8 (2)	25.0%
	NTHi/ <i>Pa</i> Dual (~10 <sup>8</sup> /~10 <sup>7</sup> )	9 (0)	0.0%
	<i>Pa</i> only (~10 <sup>7</sup> )	9 (1)	11.1%
CF	Control	4 (0)	0.0%
	NTHi only (~10 <sup>8</sup> )	7 (1)	14.3%
	NTHi/ <i>Pa</i> Dual (~10 <sup>8</sup> /~10 <sup>7</sup> )	8 (2)	25.0%
	<i>Pa</i> only (~10 <sup>7</sup> )	9 (4)	44.4%

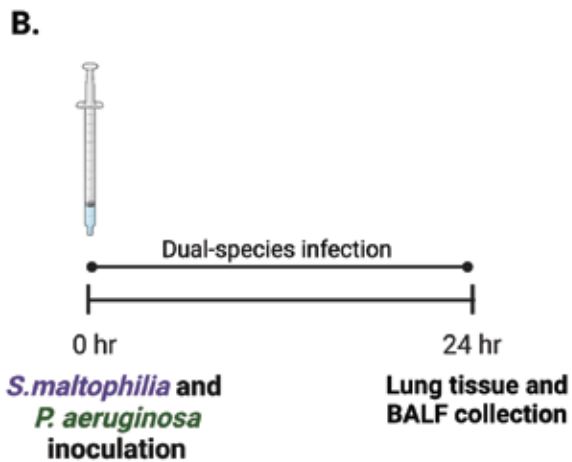
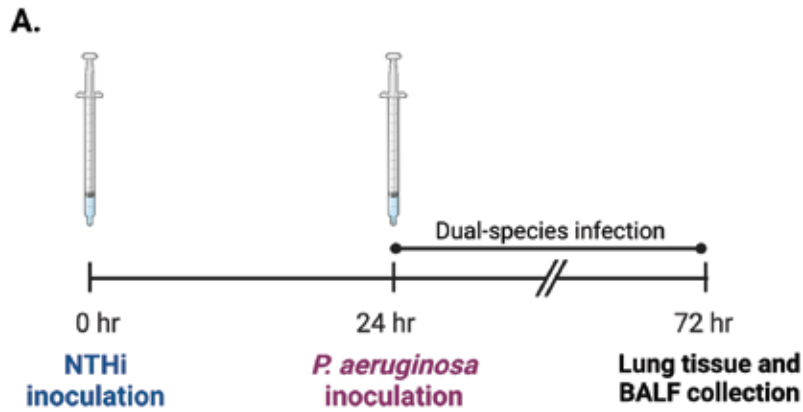
**Table S2: Total mortality\* rates of *Smlt*/*Pa* infected BALB/c mice**

	Infection Group	Total (Deaths)	Percent Mortality
WT	Control	3 (0)	0.0%
	<i>Smlt</i> only (~10 <sup>7</sup> )	4 (0)	0.0%
	<i>Smlt</i> / <i>Pa</i> Dual (~10 <sup>7</sup> /~10 <sup>7</sup> )	4 (0)	0.0%
	<i>Pa</i> only (~10 <sup>7</sup> )	4 (0)	0.0%
CF	Control	4 (0)	0.0%
	<i>Smlt</i> only (~10 <sup>7</sup> )	4 (0)	0.0%
	<i>Smlt</i> / <i>Pa</i> Dual (~10 <sup>7</sup> /~10 <sup>7</sup> )	4 (0)	0.0%
	<i>Pa</i> only (~10 <sup>7</sup> )	4 (0)	0.0%

**Table S3: Total mortality\* rates of *Smlt*/*Pa* infected C57BL/6 mice**

	Infection Group	Total (Deaths)	Percent Mortality
WT	Control	5 (0)	0.0%
	<i>Smlt</i> only (~10 <sup>7</sup> )	2 (0)	0.0%
	<i>Smlt</i> / <i>Pa</i> Dual (~10 <sup>7</sup> /~10 <sup>7</sup> )	3 (0)	0.0%
	<i>Pa</i> only (~10 <sup>7</sup> )	3 (0)	0.0%
CF	Control	9 (0)	0.0%
	<i>Smlt</i> only (~10 <sup>7</sup> )	9 (0)	0.0%
	<i>Smlt</i> / <i>Pa</i> Dual (~10 <sup>7</sup> /~10 <sup>7</sup> )	9 (1)	11.1%
	<i>Pa</i> only (~10 <sup>7</sup> )	9 (1)	11.1%

\*Mortality is defined as death prior to the end of the study



**Figure S1: Timelines of polymicrobial infection.**

Mice were sequentially infected with A) nontypeable *Haemophilus influenzae* (NTHi) 24 hours prior to inoculation with *P. aeruginosa*. At 72 hours post- initial infection (48 hours post- dual infection), the lung tissue and BALF were collected. Mice were concurrently infected with B) *S. maltophilia* and *P. aeruginosa* and the lung tissue and BALF were collected at 24 hours post-infection.