Supplemental Material for: Plant-derived benzoxazinoids act as antibiotics and shape bacterial communities

Niklas Schandry, Katharina Jandrasits, Ruben Garrido-Oter, Claude Becker

Contents

ables	2
Table S1. Syncom strains	2
Table S2. PERMANOVA	5
Table S3. PERMANOVA comparing only two treatments	6
Table S4. ANOVA: Observed taxa	7
Table S5. Observed diversity means and pairwise comparisons	8
Table S6. ANOVA: Shannon Diversity	0
Table S7. Shannon diversity means and pairwise comparisons	.1
igures 1	.3
Supplemental Figure 1	.3
Supplemental Figure 2	4
Supplemental Figure 3	.5

Tables Table S1. Syncom strains

3.61 1		Family	Order	Class	Phylum
Mixed					
Root70 Root236 Root100 Root239 Root483D1 Root342 Root137 Root1480D1 Root231 Root268 Root209 Root107 Root96 Root133 Root172 Root180 Root1257	Acidovorax Aeromicrobium Aminobacter Bacillus Bosea Caulobacter Cellulomonas Duganella Ensifer Flavobacterium Hoeflea Hydrogenophaga Kitasatospora Lysobacter Massilia Mesorhizobium Microbacterium Nocardioides	Comamonadaceae Nocardioidaceae Phyllobacteriaceae Bacillaceae Bradyrhizobiaceae Caulobacteraceae Cellulomonadaceae Oxalobacteraceae Rhizobiaceae Flavobacteriaceae Phyllobacteriaceae Comamonadaceae Streptomycetaceae Xanthomonadaceae Oxalobacteraceae Phyllobacteriaceae Microbacteriaceae Nocardioidaceae	Burkholderiales Propionibacteriales Rhizobiales Bacillales Rhizobiales Caulobacterales Actinomycetales Burkholderiales Rhizobiales Flavobacteriales Rhizobiales Burkholderiales Streptomycetales Streptomycetales Xanthomonadales Burkholderiales Rhizobiales Actinomycetales Propionibacteriales	Betaproteobacteria Actinomycetia Alphaproteobacteria Bacilli Alphaproteobacteria Alphaproteobacteria Actinomycetia Gammaproteobacteria Alphaproteobacteria Bacteroidia Alphaproteobacteria Gammaproteobacteria Gammaproteobacteria Actinomycetia Gammaproteobacteria Gammaproteobacteria Actinomycetia Alphaproteobacteria Alphaproteobacteria Actinomycetia Actinomycetia	Proteobacteria Actinobacteria Proteobacteria Firmicutes Proteobacteria Proteobacteria Actinobacteria Proteobacteria Proteobacteria Bacteroidetes Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Actinobacteria Actinobacteria Actinobacteria
Root444D2 Root101 Root1204 Root214	Paenibacillus Phycicoccus Rhizobium Sphingopyxis	Paenibacillaceae Intrasporangiaceae Rhizobiaceae Sphingomonadaceae	Paenibacillales Actinomycetales Rhizobiales Sphingomonadales	Bacilli Actinomycetia Alphaproteobacteria Alphaproteobacteria	Firmicutes Actinobacteria Proteobacteria Proteobacteria
Root217 Root1280 Root495 Root123D2 Soil762 Root239 Root565	Acidovorax Acinetobacter Aeromicrobium Afipia Arthrobacter Bacillus Bordetella	Comamonadaceae Moraxellaceae Nocardioidaceae Bradyrhizobiaceae Micrococcaceae Bacillaceae Alcaligenaceae	Burkholderiales Pseudomonadales Propionibacteriales Rhizobiales Actinomycetales Bacillales Burkholderiales	Betaproteobacteria Gammaproteobacteria Actinomycetia Alphaproteobacteria Actinomycetia Bacilli Gammaproteobacteria	Proteobacteria Proteobacteria Actinobacteria Proteobacteria Actinobacteria Firmicutes Proteobacteria
Root381 Root1472 Root919 Root685 Root1312 Root1212 Soil729 Root112D2 Root133 Root102 Root1272 Root166 Root135 Root157 Root79	Bosea Caulobacter Cupriavidus Devosia Ensifer Hoeflea Knoellia Leifsonia Massilia Mesorhizobium Methylibium Microbacterium Mycobacterium Nitratireductor Nocardioides	Bradyrhizobiaceae Caulobacteraceae Burkholderiaceae Hyphomicrobiaceae Rhizobiaceae Rhizobiaceae Phyllobacteriaceae Intrasporangiaceae Microbacteriaceae Oxalobacteraceae Phyllobacteriaceae Burkholderiales Microbacteriaceae Mycobacteriaceae Phyllobacteriaceae Phyllobacteriaceae Phyllobacteriaceae	Rhizobiales Caulobacterales Burkholderiales Rhizobiales Rhizobiales Rhizobiales Actinomycetales Actinomycetales Burkholderiales Rhizobiales Burkholderiales Actinomycetales Actinomycetales Propionibacteriales Burkholderiales Rhizobiales Rhizobiales Propionibacteriales	Alphaproteobacteria Alphaproteobacteria Gammaproteobacteria Alphaproteobacteria Alphaproteobacteria Alphaproteobacteria Actinomycetia Actinomycetia Gammaproteobacteria Alphaproteobacteria Gammaproteobacteria Actinomycetia Actinomycetia Actinomycetia Actinomycetia Actinomycetia Actinomycetia	Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Proteobacteria Actinobacteria Actinobacteria Proteobacteria Proteobacteria Proteobacteria Actinobacteria Actinobacteria Actinobacteria Actinobacteria Proteobacteria Proteobacteria Proteobacteria
Root123D2 Soil762 Root239 Root565 Root381 Root1472 Root919 Root685 Root1312 Root1212 Soil729 Root112D2 Root133 Root102 Root1272 Root166 Root135 Root157	Afipia Arthrobacter Bacillus Bordetella Bosea Caulobacter Cupriavidus Devosia Ensifer Hoeflea Knoellia Leifsonia Massilia Mesorhizobium Methylibium Microbacterium Mycobacterium Nitratireductor	Bradyrhizobiaceae Micrococcaceae Bacillaceae Alcaligenaceae Bradyrhizobiaceae Caulobacteraceae Burkholderiaceae Hyphomicrobiaceae Rhizobiaceae Phyllobacteriaceae Intrasporangiaceae Microbacteriaceae Oxalobacteriaceae Phyllobacteriaceae Burkholderiales Microbacteriaceae Mycobacteriaceae Phyllobacteriaceae	Rhizobiales Actinomycetales Bacillales Burkholderiales Rhizobiales Caulobacterales Burkholderiales Rhizobiales Rhizobiales Rhizobiales Actinomycetales Actinomycetales Burkholderiales Rhizobiales Burkholderiales Rhizobiales Burkholderiales Rhizobiales Actinomycetales Rhizobiales Burkholderiales Rhizobiales Actinomycetales Rhizobiales	Alphaproteobacte Actinomycetia Bacilli Gammaproteobacte Alphaproteobacte Alphaproteobacte Alphaproteobacte Alphaproteobacte Alphaproteobacte Alphaproteobacte Actinomycetia Actinomycetia Gammaproteobacte Gammaproteobacte Gammaproteobacte Actinomycetia Actinomycetia Actinomycetia Actinomycetia	eteria eria eteria eria eria eria eria eria eteria eteria eteria eteria

Root918	Oerskovia	Cellulomonadaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root700	Phenylobacterium	Caulobacteraceae	Caulobacterales	Alphaproteobacteria	Proteobacteria
Root9	Pseudomonas	Pseudomonadaceae	Pseudomonadales	Gammaproteobacteria	Proteobacteria
Root1203	Rhizobium	Rhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root561	Rhodanobacter	Xanthomonadaceae	Xanthomonadales	Gammaproteobacteria	Proteobacteria
Root66D1	Streptomyces	Streptomycetaceae	Streptomycetales	Actinomycetia	Actinobacteria
Root85	Terrabacter	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Soil756	Tetrasphaera	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Sensitive					
Root70	Acidovorax	Comamonadaceae	Burkholderiales	Betaproteobacteria	Proteobacteria
Root236	Aeromicrobium	Nocardioidaceae	Propionibacteriales	Actinomycetia	Actinobacteria
Root100	Aminobacter	Phyllobacteriaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Soil531	Bacillus	Bacillaceae	Bacillales	Bacilli	Firmicutes
Root483D1	Bosea	Bradyrhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root137	Cellulomonas	Cellulomonadaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root142	Ensifer	Rhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root935	Flavobacterium	Flavobacteriaceae	Flavobacteriales	Bacteroidia	Bacteroidetes
Root209	Hydrogenophaga	Comamonadaceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root983	Lysobacter	Xanthomonadaceae	Xanthomonadales	Gammaproteobacteria	Proteobacteria
Root172	Mesorhizobium	Phyllobacteriaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root61	Microbacterium	Microbacteriaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root240	Nocardioides	Nocardioidaceae	Propionibacteriales	Actinomycetia	Actinobacteria
Soil750	Paenibacillus	Paenibacillaceae	Paenibacillales	Bacilli	Firmicutes
Root1277	Phenylobacterium	Caulobacteraceae	Caulobacterales	Alphaproteobacteria	Proteobacteria
Root 563	Phycicoccus	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root274	Rhizobium	Rhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root214	Sphingopyxis	Sphingomonadaceae	Sphingomonadales	Alphaproteobacteria	Proteobacteria
Soil811	Terrabacter	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root434	Variovorax	Comamonadaceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Random					
Root217	Acidovorax	Comamonadaceae	Burkholderiales	Betaproteobacteria	Proteobacteria
Root1280	Acinetobacter	Moraxellaceae	Pseudomonadales	Gammaproteobacteria	Proteobacteria
Root344	Aeromicrobium	Nocardioidaceae	Propionibacteriales	Actinomycetia	Actinobacteria
Root123D2	Afipia	Bradyrhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root1464	Agromyces	Microbacteriaceae	Actinomycetales	Actinomycetia	Actinobacteria
Soil736	Arthrobacter	Micrococcaceae	Actinomycetales	Actinomycetia	Actinobacteria
Soil531	Bacillus	Bacillaceae	Bacillales	Bacilli	Firmicutes
Root565	Bordetella	Alcaligenaceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root381	Bosea	Bradyrhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root342	Caulobacter	Caulobacteraceae	Caulobacterales	Alphaproteobacteria	Proteobacteria
Root137	Cellulomonas	Cellulomonadaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root919	Cupriavidus	Burkholderiaceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root105	Devosia	Hyphomicrobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root1480D1	Duganella	Oxalobacteraceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root1252	Ensifer	Rhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root420	Flavobacterium	Flavobacteriaceae	Flavobacteriales	Bacteroidia	Bacteroidetes
Root268	Hoeflea	Phyllobacteriaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Soil728	Janibacter	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root107	Kitasatospora	Streptomycetaceae	Streptomycetales	Actinomycetia	Actinobacteria
Soil729	Knoellia	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root1293	Leifsonia	Microbacteriaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root604	Lysobacter	Xanthomonadaceae	Xanthomonadales	Gammaproteobacteria	Proteobacteria
	•			-	

Root133	Massilia	Oxalobacteraceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root1471	Mesorhizobium	Phyllobacteriaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root1272	Methylibium	Burkholderiales	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root322	Microbacterium	Microbacteriaceae	Actinomycetales	Actinomycetia	Actinobacteria
Soil538	Mycobacterium	Mycobacteriaceae	Mycobacteriales	Actinomycetia	Actinobacteria
Root157	Nitratireductor	Phyllobacteriaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Root136	Nocardia	Nocardiaceae	Mycobacteriales	Actinomycetia	Actinobacteria
Root1257	Nocardioides	Nocardioidaceae	Propionibacteriales	Actinomycetia	Actinobacteria
Root189	Noviherbaspirillum	Oxalobacteraceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root22	Oerskovia	Cellulomonadaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root52	Paenibacillus	Paenibacillaceae	Paenibacillales	Bacilli	Firmicutes
Root700	Phenylobacterium	Caulobacteraceae	Caulobacterales	Alphaproteobacteria	Proteobacteria
Root563	Phycicoccus	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root329	Pseudomonas	Pseudomonadaceae	Pseudomonadales	Gammaproteobacteria	Proteobacteria
Root65	Pseudoxanthomonas	Xanthomonadaceae	Xanthomonadales	Gammaproteobacteria	Proteobacteria
Root29	Rhizobacter	Pseudomonadaceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root708	Rhizobium	Rhizobiaceae	Rhizobiales	Alphaproteobacteria	Proteobacteria
Soil772	Rhodanobacter	Xanthomonadaceae	Xanthomonadales	Gammaproteobacteria	Proteobacteria
Root1294	Sphingomonas	Sphingomonadaceae	Sphingomonadales	Alphaproteobacteria	Proteobacteria
Root214	Sphingopyxis	Sphingomonadaceae	Sphingomonadales	Alphaproteobacteria	Proteobacteria
Root1310	Streptomyces	Streptomycetaceae	Streptomycetales	Actinomycetia	Actinobacteria
Soil811	Terrabacter	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Soil756	Tetrasphaera	Intrasporangiaceae	Actinomycetales	Actinomycetia	Actinobacteria
Root411	Variovorax	Comamonadaceae	Burkholderiales	Gammaproteobacteria	Proteobacteria
Root332	Yonghaparkia	Microbacteriaceae	Actinomycetales	Actinomycetia	Actinobacteria

Table S2. PERMANOVA

term	Df	SumsOfSqs	MeanSqs	F.Model	R2	p.value
Random						
Timepoint	3	1.1953	0.3984	14.7627	0.3100	0.001 * *
Treatment	2	1.5522	0.7761	28.7561	0.4026	0.001 * *
Timepoint:Treatment	6	0.1363	0.0227	0.8420	0.0354	0.594
Residuals	36	0.9716	0.0270	NA	0.2520	NA
Total	47	3.8555	NA	NA	1.0000	NA
Tolerant						
Timepoint	3	0.9527	0.3176	10.9268	0.3293	0.001 * *
Treatment	2	0.6252	0.3126	10.7561	0.2161	0.001 * *
Timepoint:Treatment	6	0.2687	0.0448	1.5410	0.0929	0.098
Residuals	36	1.0463	0.0291	NA	0.3617	NA
Total	47	2.8929	NA	NA	1.0000	NA
Mixed						
Timepoint	3	0.1909	0.0636	1.2030	0.0199	0.296
Treatment	2	7.2278	3.6139	68.3271	0.7544	0.001 * *
Timepoint:Treatment	6	0.2575	0.0429	0.8115	0.0269	0.621
Residuals	36	1.9041	0.0529	NA	0.1987	NA
Total	47	9.5803	NA	NA	1.0000	NA
Sensitive						
Timepoint	3	0.0395	0.0132	1.9094	0.0631	0.130
Treatment	2	0.2605	0.1303	18.9085	0.4166	0.001 * *
Timepoint:Treatment	6	0.0774	0.0129	1.8728	0.1238	0.081
Residuals	36	0.2480	0.0069	NA	0.3966	NA
Total	47	0.6254	NA	NA	1.0000	NA

Table S3. PERMANOVA comparing only two treatments

term	Df	SumsOfSqs	MeanSqs	F.Model	R2	p.value
Random - APO						
Treatment	1	1.0477	1.0477	18.1201	0.3766	0.001 * *
Residuals	30	1.7346	0.0578	NA	0.6234	NA
Total	31	2.7823	NA	NA	1.0000	NA
Random - BOA						
Treatment	1	0.0412	0.0412	0.8416	0.0273	0.435
Residuals	30	1.4680	0.0489	NA	0.9727	NA
Total	31	1.5092	NA	NA	1.0000	NA
Tolerant - APO						
Treatment	1	0.4742	0.4742	8.3739	0.2182	0.001 * *
Residuals	30	1.6988	0.0566	NA	0.7818	NA
Total	31	2.1730	NA	NA	1.0000	NA
Tolerant - BOA						
Treatment	1	0.0617	0.0617	1.5378	0.0488	0.197
Residuals	30	1.2028	0.0401	NA	0.9512	NA
Total	31	1.2645	NA	NA	1.0000	NA
Mixed - APO						
Treatment	1	5.1799	5.1799	70.8788	0.7026	0.001 * *
Residuals	30	2.1924	0.0731	NA	0.2974	NA
Total	31	7.3724	NA	NA	1.0000	NA
Mixed - BOA						
Treatment	1	0.0577	0.0577	4.6442	0.1341	0.020 *
Residuals	30	0.3726	0.0124	NA	0.8659	NA
Total	31	0.4303	NA	NA	1.0000	NA
Sensitive - APO						
Treatment	1	0.0229	0.0229	20.8918	0.4105	0.001 * *
Residuals	30	0.0329	0.0011	NA	0.5895	NA
Total	31	0.0559	NA	NA	1.0000	NA
Sensitive - BOA						
Treatment	1	0.1120	0.1120	10.3315	0.2562	0.003 * *
Residuals	30	0.3251	0.0108	NA	0.7438	NA
Total	31	0.4370	NA	NA	1.0000	NA

Table S4. ANOVA: Observed taxa

term	df	sumsq	meansq	statistic	p.value
Random					
Treatment	2	0.05101594	0.025507971	4.1016798	2.484563e-02 *
Timepoint	3	0.25046221	0.083487403	13.4247681	4.907087e-06**
Treatment:Timepoint	6	0.01463861	0.002439768	0.3923145	8.790628e-01
Residuals	36	0.22388070	0.006218908	NA	NA
Tolerant					
Treatment	2	0.21585880	0.107929398	13.1512316	5.156453e-05 * *
Timepoint	3	0.32902545	0.109675150	13.3639521	5.118265e- $06**$
Treatment:Timepoint	6	0.03393162	0.005655270	0.6890965	6.596909e-01
Residuals	36	0.29544444	0.008206790	NA	NA
Mixed					
Treatment	2	2.32954036	1.164770180	41.3453120	4.720082e-10 * *
Timepoint	3	0.35051038	0.116836792	4.1473019	1.268430e-02 *
Treatment:Timepoint	6	0.31516138	0.052526897	1.8645231	1.140745e-01
Residuals	36	1.01418334	0.028171759	NA	NA
Sensitive					
Treatment	2	0.46631836	0.233159182	30.3635644	1.877482e-08 * *
Timepoint	3	0.07701343	0.025671142	3.3430696	2.974336e-02*
Treatment:Timepoint	6	0.09728286	0.016213809	2.1114718	7.590701e-02
Residuals	36	0.27644088	0.007678913	NA	NA

Table S5. Observed diversity means and pairwise comparisons

Treatment	estimate	95% CI	$Group^1$
Random - 24h			
BOA	1.148	[1.068 - 1.228]	a
APO	1.216	[1.136 - 1.296]	a
Control	1.224	[1.144 - 1.304]	a
Random - 48h			
BOA	1.221	[1.141 - 1.301]	a
APO	1.282	[1.202 - 1.362]	a
Control	1.297	[1.217 - 1.377]	a
Random - 72h			
APO	1.329	[1.249 - 1.409]	a
BOA	1.349	[1.269 - 1.429]	a
Control	1.435	[1.355 - 1.515]	a
Random - 96h			
BOA	1.328	[1.248 - 1.408]	a
APO	1.351	[1.271 - 1.431]	a
Control	1.407	[1.327 - 1.487]	a
Tolerant - 24h			
BOA	0.964	[0.872 - 1.056]	a
Control	0.994	[0.902 - 1.086]	ab
APO	1.125	[1.033 - 1.217]	b
Tolerant - 48h			
Control	1.055	[0.963 - 1.147]	a
BOA	1.145	[1.053 - 1.237]	ab
APO	1.275	[1.183 - 1.367]	b
Tolerant - 72h			
Control	1.128	[1.036 - 1.22]	a
BOA	1.165	[1.073 - 1.257]	ab
APO	1.315	[1.223 - 1.407]	b
Tolerant - 96h			
Control	1.208	[1.117 - 1.3]	a
BOA	1.247	[1.155 - 1.339]	a
APO	1.295	[1.203 - 1.387]	a
Mixed - 24h			
BOA	0.539	[0.368 - 0.709]	a
Control	0.666	[0.496 - 0.836]	ab
APO	0.907	[0.737 - 1.078]	b
Mixed - 48h			
BOA	0.228	[0.057 - 0.398]	a
Control	0.344	[0.174 - 0.514]	a
APO	1.027	[0.856 - 1.197]	b
Mixed - 72h			
BOA	0.250	[0.08 - 0.42]	a

Control	0.423	[]	a
APO	0.739	[0.569 - 0.909]	b
Mixed - 96h			
BOA	0.385	[0.215 - 0.555]	a
Control	0.532	[0.361 - 0.702]	ab
APO	0.814	[0.644 - 0.984]	b
Sensitive - 24h			
APO	0.041	[-0.048 - 0.13]	a
Control	0.210	[0.121 - 0.299]	b
BOA	0.220	[0.131 - 0.309]	b
Sensitive - 48h			
APO	0.044	[-0.045 - 0.133]	a
Control	0.144	[0.055 - 0.233]	a
BOA	0.377	[0.289 - 0.466]	b
Sensitive - 72h			
APO	0.024	[-0.065 - 0.113]	a
Control	0.057	[-0.032 - 0.146]	a
BOA	0.308	[0.22 - 0.397]	b
Sensitive - 96h			
APO	0.021	[-0.068 - 0.109]	a
Control	0.043	[-0.045 - 0.132]	ab
BOA	0.174	[0.085 - 0.262]	b

 $^{^1\}mathrm{Different}$ letters indicate significant differences within one Syncom / Timepoint combination (alpha = 0.05), Tukey adjusted

Table S6. ANOVA: Shannon Diversity

term	df	sumsq	meansq	statistic	p.value
Random					
Treatment	2	0.04965670	0.024828351	3.9818448	2.740000e-02 *
Timepoint	3	0.25834405	0.086114684	13.8106353	3.764333e-06**
Treatment:Timepoint	6	0.02053069	0.003421782	0.5487681	7.675710e-01
Residuals	36	0.22447400	0.006235389	NA	NA
Tolerant					
Treatment	2	0.20619734	0.103098670	11.8582100	1.106005e-04 * *
Timepoint	3	0.31193275	0.103977584	11.9593009	1.392757e-05**
Treatment:Timepoint	6	0.03231331	0.005385552	0.6194357	7.133662e-01
Residuals	36	0.31299430	0.008694286	NA	NA
Mixed					
Treatment	2	2.20186153	1.100930766	37.4317591	1.611570e-09 * *
Timepoint	3	0.31214721	0.104049071	3.5376791	2.413246e-02*
Treatment:Timepoint	6	0.31328626	0.052214376	1.7752942	1.320402e-01
Residuals	36	1.05882033	0.029411676	NA	NA
Sensitive					
Treatment	2	0.64164868	0.320824339	33.1316491	6.894276e-09 * *
Timepoint	3	0.09113328	0.030377760	3.1371226	3.717840e-02*
Treatment:Timepoint	6	0.12710073	0.021183455	2.1876233	6.692054 e-02
Residuals	36	0.34859950	0.009683319	NA	NA

Table S7. Shannon diversity means and pairwise comparisons

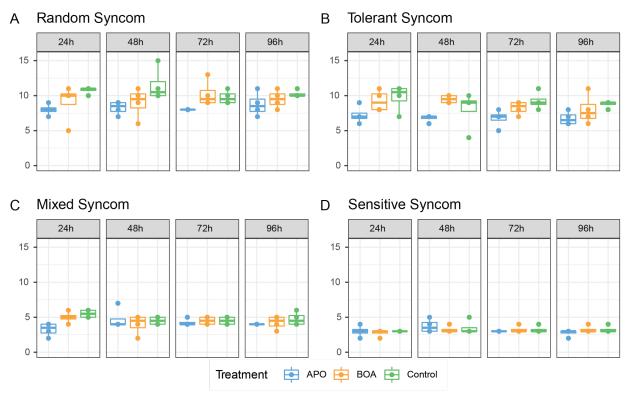
Treatment	estimate	95% CI	Group^1
Random - 24h			
BOA	1.130	[1.05 - 1.21]	a
Control	1.224	[1.144 - 1.305]	a
APO	1.225	[1.145 - 1.305]	a
Random - 48h			
BOA	1.235	[1.155 - 1.315]	a
APO	1.282	[1.202 - 1.362]	a
Control	1.296	[1.216 - 1.376]	a
Random - 72h			
APO	1.329	[1.249 - 1.409]	a
BOA	1.354	[1.274 - 1.435]	a
Control	1.437	[1.357 - 1.517]	a
Random - 96h			
BOA	1.330	[1.25 - 1.41]	a
APO	1.349	[1.269 - 1.429]	a
Control	1.406	[1.326 - 1.486]	a
Tolerant - 24h			
BOA	0.995	[0.9 - 1.09]	a
Control	1.023	[0.928 - 1.117]	a
APO	1.142	[1.047 - 1.236]	a
Tolerant - 48h			
Control	1.071	[0.976 - 1.166]	a
BOA	1.162	[1.067 - 1.256]	ab
APO	1.290	[1.195 - 1.384]	b
Tolerant - 72h			
Control	1.148	[1.053 - 1.242]	a
BOA	1.182	[1.087 - 1.276]	ab
APO	1.333	[1.239 - 1.428]	b
Tolerant - 96h			
Control	1.231	[1.137 - 1.326]	a
BOA	1.263	[1.169 - 1.358]	a
APO	1.317	[1.223 - 1.412]	a
Mixed - 24h			
BOA	0.517	[0.343 - 0.691]	a
Control	0.651	[0.477 - 0.825]	ab
APO	0.917	[0.743 - 1.091]	b
Mixed - 48h			
BOA	0.233	[0.059 - 0.407]	a
Control	0.353	[0.179 - 0.527]	a
APO	1.021	[0.847 - 1.195]	b
Mixed - 72h			
BOA	0.258	[0.084 - 0.432]	a

Control	0.443	[0.269 - 0.617]	ab
APO	0.723	[0.549 - 0.897]	b
Mixed - 96h			
BOA	0.402	[0.228 - 0.576]	a
Control	0.555	[0.381 - 0.729]	ab
APO	0.789	[0.615 - 0.962]	b
Sensitive - 24h			
APO	0.043	[-0.057 - 0.143]	a
Control	0.234	[0.134 - 0.334]	b
BOA	0.247	[0.147 - 0.347]	b
Sensitive - 48h			
APO	0.051	[-0.049 - 0.151]	a
Control	0.172	[0.072 - 0.272]	a
BOA	0.439	[0.339 - 0.539]	b
Sensitive - 72h			
APO	0.032	[-0.068 - 0.131]	a
Control	0.073	[-0.027 - 0.173]	a
BOA	0.368	[0.268 - 0.467]	b
Sensitive - 96h			
APO	0.027	[-0.073 - 0.127]	a
Control	0.056	[-0.044 - 0.156]	ab
BOA	0.214	[0.114 - 0.314]	b

 $^{^1\}mathrm{Different}$ letters indicate significant differences within one Syncom / Timepoint combination (alpha = 0.05), Tukey adjusted

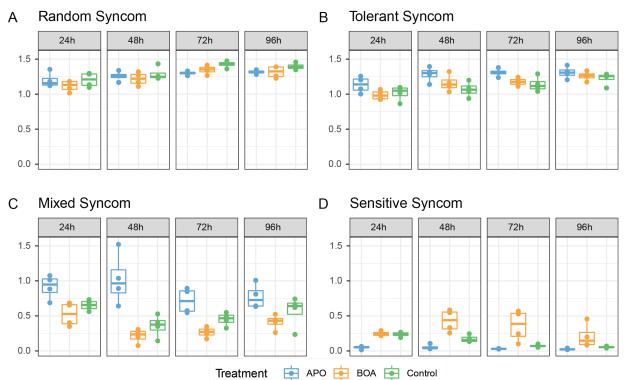
Figures

Supplemental Figure 1



Supplemental Figure 1. Observed alpha diversity. The number of observed bacterial genera of the samples belonging to the four different syncoms $(\mathbf{A}\text{-}\mathbf{D})$ is shown for each time point (facet) and treatment (color). Each sample is plotted as a dot, and box-and-whisker plots show the summary statistics for each treatment / time point combination.

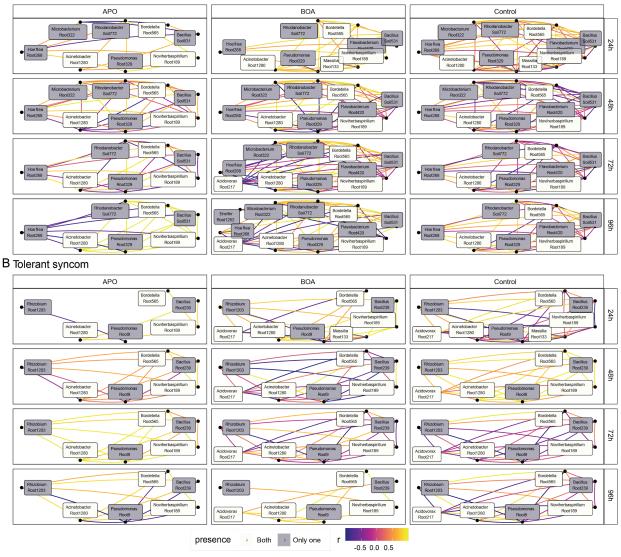
Supplemental Figure 2



Supplemental Figure 2. Shannon diversity indices of the synthetic communities. The Shannon indices of the samples belonging to the four different syncoms (A-D) are shown for each time point (facet) and treatment (color). Each sample is plotted as a dot, and box-and-whisker plots show the summary statistics for each treatment / time point combination.

Supplemental Figure 3

A Random syncom



Supplemental Figure 3. Correlation networks. Networks of isolate Pearson's correlations in the random (A) and tolerant (B) syncom. Each individual plot shows correlations between isolates for one time point and treatment combination. The color of each edge indicates the strength, and sign of the correlation (blue: negative correlation; yellow: positive) and each node represents one isolate. The background color of the node label indicates whether an isolate was part of both communities (white) or only included in one (gray). Only correlations where $|\mathbf{r}| > 0.5$ were included.