

Supplementary Material

1 SUPPLEMENTARY TABLES

The calculations behind the heatmaps in the main paper are in the following tables.

	Bacterial Class	Sample													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	Gammaproteobacteria	6	1	3	1	0	0	0	0	2	3	2	0	0	0
1	Bacteroidia	2	2	9	0	0	0	0	0	0	0	0	0	0	0
2	Acidimicrobiia	5	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Bacilli	1	0	5	0	0	0	0	0	0	0	0	0	0	0
4	Clostridia	0	2	19	1	0	0	2	3	0	0	0	0	0	0
5	Clostridia_A	0	1	3	0	0	0	3	0	0	0	0	0	0	0
6	Negativicutes	0	0	1	0	0	0	0	0	0	0	0	0	0	0
7	Actinomycetia	0	0	0	0	0	0	1	1	0	0	0	0	0	0
8	Alphaproteobacteria	0	0	0	0	0	0	0	0	2	2	2	0	0	0
9	Planctomycetes	0	0	0	0	0	0	0	0	1	0	0	0	0	0
10	Phycisphaerae	0	0	0	0	0	0	0	0	0	1	0	0	0	0

Table S1. The count of ARG classes in different hospital sewage samples according to DeepARG-DB.

	Bacterial Class	Sample													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Gammaproteobacteria	5	1	2	1	0	0	0	0	1	3	2	0	0	0
2	Bacteroidia	2	1	11	0	0	0	0	0	0	0	0	0	0	0
3	Acidimicrobiia	4	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Bacilli	1	0	5	0	0	0	0	0	0	0	0	0	0	0
5	Clostridia	0	1	19	1	0	0	1	3	0	0	0	0	0	0
6	Clostridia_A	0	1	3	0	0	0	2	0	0	0	0	0	0	0
7	Negativicutes	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8	Actinomycetia	0	0	1	0	0	0	1	1	0	0	0	0	0	0
9	Alphaproteobacteria	0	0	0	0	0	0	0	0	1	2	2	0	0	0
10	Planctomycetes	0	0	0	0	0	0	0	0	1	0	0	0	0	0
11	Phycisphaerae	0	0	0	0	0	0	0	0	0	1	0	0	0	0

Table S2. The count of ARG classes in different hospital sewage samples according to CARD.

	Bacterial Class	Sample							
		1	2	3	4	5	6	7	8
1	Bacteroidia	1	0	2	0	0	2	1	0
2	Calditrichia	1	0	1	0	0	2	0	0
3	Gammaproteobacteria	0	1	1	2	2	0	1	1
4	Polyangia	0	1	1	0	0	0	0	0
5	Acidimicrobiia	0	0	1	0	0	0	0	0
6	RBG-16-71-46	0	0	0	1	0	0	0	0
7	Alphaproteobacteria	0	0	0	0	2	0	1	0
8	UBA2214	0	0	0	0	0	0	1	1

Table S3. The count of ARG classes in different urban conventional activated sludge samples according to DeepARG-DB.

	Bacterial Class	Sample							
		1	2	3	4	5	6	7	8
1	Bacteroidia	1	0	2	0	0	2	1	0
2	Calditrichia	1	0	1	0	0	2	0	0
3	Gammaproteobacteria	0	1	1	2	2	0	0	0
4	Polyangia	0	1	1	0	0	0	0	0
5	Acidimicrobiia	0	0	1	0	0	0	0	0
6	RBG-16-71-46	0	0	0	1	0	0	0	0
7	Alphaproteobacteria	0	0	0	0	2	0	1	0
8	UBA2214	0	0	0	0	0	0	0	0

Table S4. The count of ARG classes in different urban conventional activated sludge samples according to CARD.

	Bacterial Class	Sample									
		1	2	3	4	5	6	7	8	9	10
1	c_Bacilli	3	0	1	0	0	0	0	0	0	0
2	c_Gammaproteobacteria	1	0	0	1	0	1	0	0	1	0
3	c_Fusobacteriia	2	0	0	0	0	0	0	0	0	0
4	c_Clostridia	0	0	1	0	0	0	0	0	0	0
5	c_Negativicutes	0	0	0	1	1	0	0	0	0	0
6	c_Campylobacteria	0	0	0	0	1	0	0	0	0	0
7	c_Desulfobacteria	0	0	0	0	0	1	0	0	0	0
8	c_Polyangia	0	0	0	0	0	0	0	0	1	0

Table S5. The count of ARG classes in different urban sewage samples according to DeepARG-DB.

	Bacterial Class	Sample									
		1	2	3	4	5	6	7	8	9	10
1	c_Bacilli	3	0	1	0	0	0	0	0	0	0
2	c_Gammaproteobacteria	1	0	0	1	0	1	0	0	1	0
3	c_Fusobacteriia	2	0	0	0	0	0	0	0	0	0
4	c_Clostridia	0	0	1	0	0	0	0	0	0	0
5	c_Negativicutes	0	0	0	1	1	0	0	0	0	0
6	c_Campylobacteria	0	0	0	0	1	0	0	0	0	0
7	c_Desulfobacteria	0	0	0	0	0	1	0	0	0	0
8	c_Polyangia	0	0	0	0	0	0	0	0	1	0

Table S6. The count of ARG classes in different urban sewage samples according to CARD.