

Supplemental Figure 1: Separation of wild-type and non-wild-type populations

Contents

1 Penicillin	4
1.1 Penicillin, <i>S. aureus</i>	4
2 Ampicillin	5
2.1 Ampicillin, <i>E. coli</i>	5
3 Amoxicillin clavulanate	6
3.1 Amoxicillin clavulanate, <i>E. coli</i>	6
3.2 Amoxicillin clavulanate, <i>K. pneumoniae</i>	7
4 Temocillin	8
4.1 Temocillin, <i>E. coli</i>	8
4.2 Temocillin, <i>K. pneumoniae</i>	9
4.3 Temocillin, <i>E. cloacae</i>	10
5 Piperacillin/Tazobactam	11
5.1 Piperacillin/Tazobactam, <i>E. coli</i>	11
5.2 Piperacillin/Tazobactam, <i>K. pneumoniae</i>	12
5.3 Piperacillin/Tazobactam, <i>E. cloacae</i>	13
6 Cefuroxime	14
6.1 Cefuroxime, <i>E. coli</i>	14
6.2 Cefuroxime, <i>K. pneumoniae</i>	15
6.3 Cefuroxime, <i>E. cloacae</i>	16
7 Cefoxitin	17
7.1 Cefoxitin, <i>E. coli</i>	17
7.2 Cefoxitin, <i>K. pneumoniae</i>	18
7.3 Cefoxitin, <i>S. aureus</i>	19
7.4 Cefoxitin, <i>S. epidermidis</i>	20
8 Cefpodoxime	21
8.1 Cefpodoxime, <i>E. coli</i>	21
8.2 Cefpodoxime, <i>K. pneumoniae</i>	22
8.3 Cefpodoxime, <i>E. cloacae</i>	23
9 Ceftriaxone	24
9.1 Ceftriaxone, <i>E. coli</i>	24
9.2 Ceftriaxone, <i>K. pneumoniae</i>	25

9.3	Ceftriaxone, <i>E. cloacae</i>	26
10	Cefepime	27
10.1	Cefepime, <i>E. coli</i>	27
10.2	Cefepime, <i>K. pneumoniae</i>	28
10.3	Cefepime, <i>E. cloacae</i>	29
11	Meropenem	30
11.1	Meropenem, <i>E. coli</i>	30
11.2	Meropenem, <i>K. pneumoniae</i>	31
11.3	Meropenem, <i>E. cloacae</i>	32
12	Norfloxacin	33
12.1	Norfloxacin, <i>E. coli</i>	33
12.2	Norfloxacin, <i>K. pneumoniae</i>	34
12.3	Norfloxacin, <i>E. cloacae</i>	35
12.4	Norfloxacin, <i>S. aureus</i>	36
12.5	Norfloxacin, <i>S. epidermidis</i>	37
13	Ciprofloxacin	38
13.1	Ciprofloxacin, <i>E. coli</i>	38
13.2	Ciprofloxacin, <i>K. pneumoniae</i>	39
13.3	Ciprofloxacin, <i>E. cloacae</i>	40
13.4	Ciprofloxacin, <i>S. aureus</i>	41
13.5	Ciprofloxacin, <i>S. epidermidis</i>	42
14	Levofloxacin	43
14.1	Levofloxacin, <i>E. coli</i>	43
14.2	Levofloxacin, <i>K. pneumoniae</i>	44
14.3	Levofloxacin, <i>E. cloacae</i>	45
14.4	Levofloxacin, <i>S. aureus</i>	46
14.5	Levofloxacin, <i>S. epidermidis</i>	47
15	Gentamicin	48
15.1	Gentamicin, <i>E. coli</i>	48
15.2	Gentamicin, <i>K. pneumoniae</i>	49
15.3	Gentamicin, <i>E. cloacae</i>	50
15.4	Gentamicin, <i>S. aureus</i>	51
15.5	Gentamicin, <i>S. epidermidis</i>	52
16	Tobramycin	53
16.1	Tobramycin, <i>E. coli</i>	53
16.2	Tobramycin, <i>K. pneumoniae</i>	54
16.3	Tobramycin, <i>E. cloacae</i>	55
16.4	Tobramycin, <i>S. aureus</i>	56

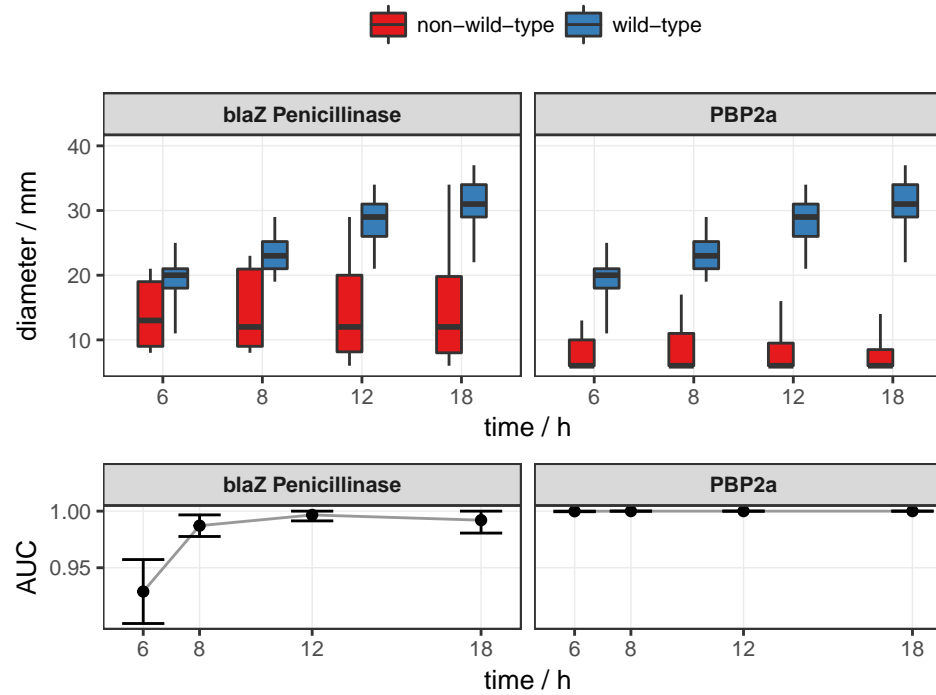
16.5 Tobramycin, <i>S. epidermidis</i>	57
17 Kanamycin	58
17.1 Kanamycin, <i>S. aureus</i>	58
17.2 Kanamycin, <i>S. epidermidis</i>	59
18 Erythromycin	60
18.1 Erythromycin, <i>S. aureus</i>	60
18.2 Erythromycin, <i>S. epidermidis</i>	61
19 Clindamycin	62
19.1 Clindamycin, <i>S. aureus</i>	62
19.2 Clindamycin, <i>S. epidermidis</i>	63
20 Tetracycline	64
20.1 Tetracycline, <i>S. aureus</i>	64
20.2 Tetracycline, <i>S. epidermidis</i>	65
21 Minocycline	66
21.1 Minocycline, <i>S. aureus</i>	66
21.2 Minocycline, <i>S. epidermidis</i>	67
22 Sulfameth./Trimethoprim	68
22.1 Sulfameth./Trimethoprim, <i>E. coli</i>	68
22.2 Sulfameth./Trimethoprim, <i>K. pneumoniae</i>	69
22.3 Sulfameth./Trimethoprim, <i>E. cloacae</i>	70
22.4 Sulfameth./Trimethoprim, <i>S. aureus</i>	71
22.5 Sulfameth./Trimethoprim, <i>S. epidermidis</i>	72
23 Rifampicin	73
23.1 Rifampicin, <i>S. aureus</i>	73
23.2 Rifampicin, <i>S. epidermidis</i>	74
24 Linezolid	75
24.1 Linezolid, <i>S. aureus</i>	75
24.2 Linezolid, <i>S. epidermidis</i>	76
25 Fusidic acid	77
25.1 Fusidic acid, <i>S. aureus</i>	77
25.2 Fusidic acid, <i>S. epidermidis</i>	78

1 Penicillin

1.1 Penicillin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	158	95	99	100	100
blaZ Penicillinase	185	92	98	99	100
PBP2a	51	96	100	100	100



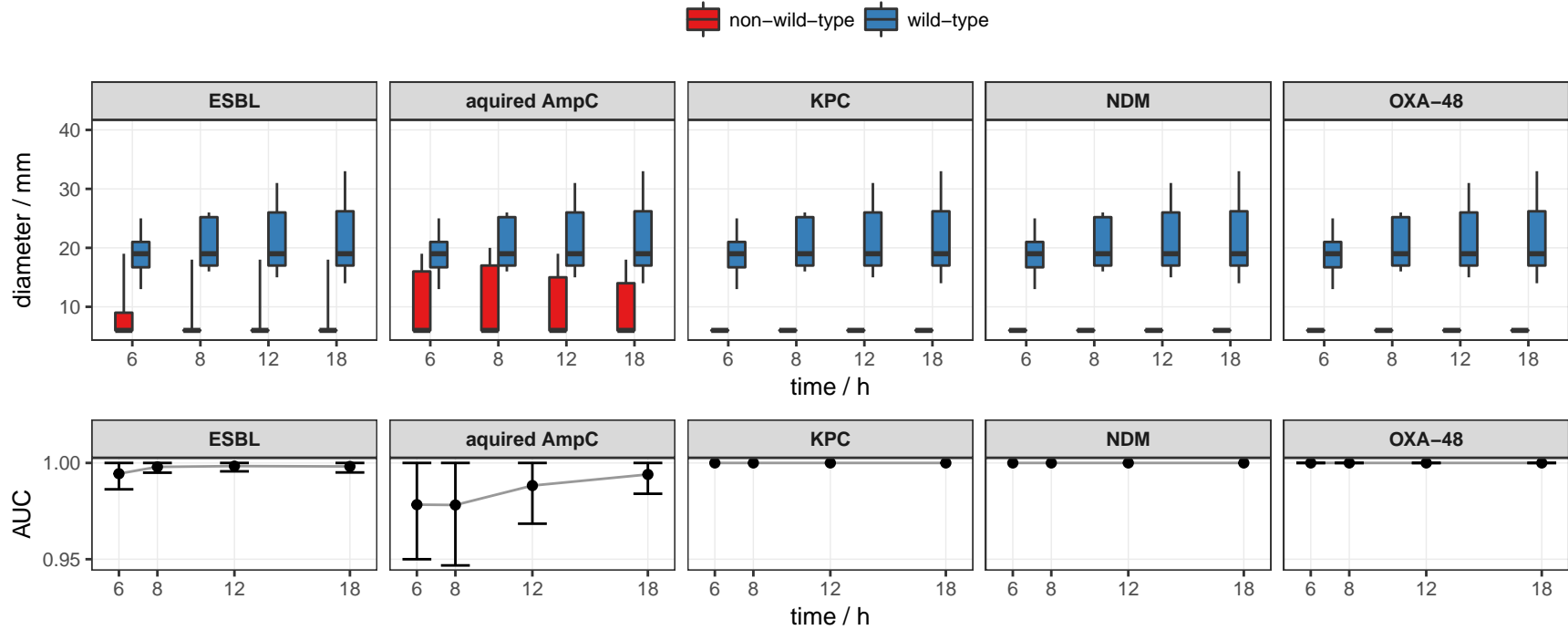
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

2 Ampicillin

2.1 Ampicillin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100



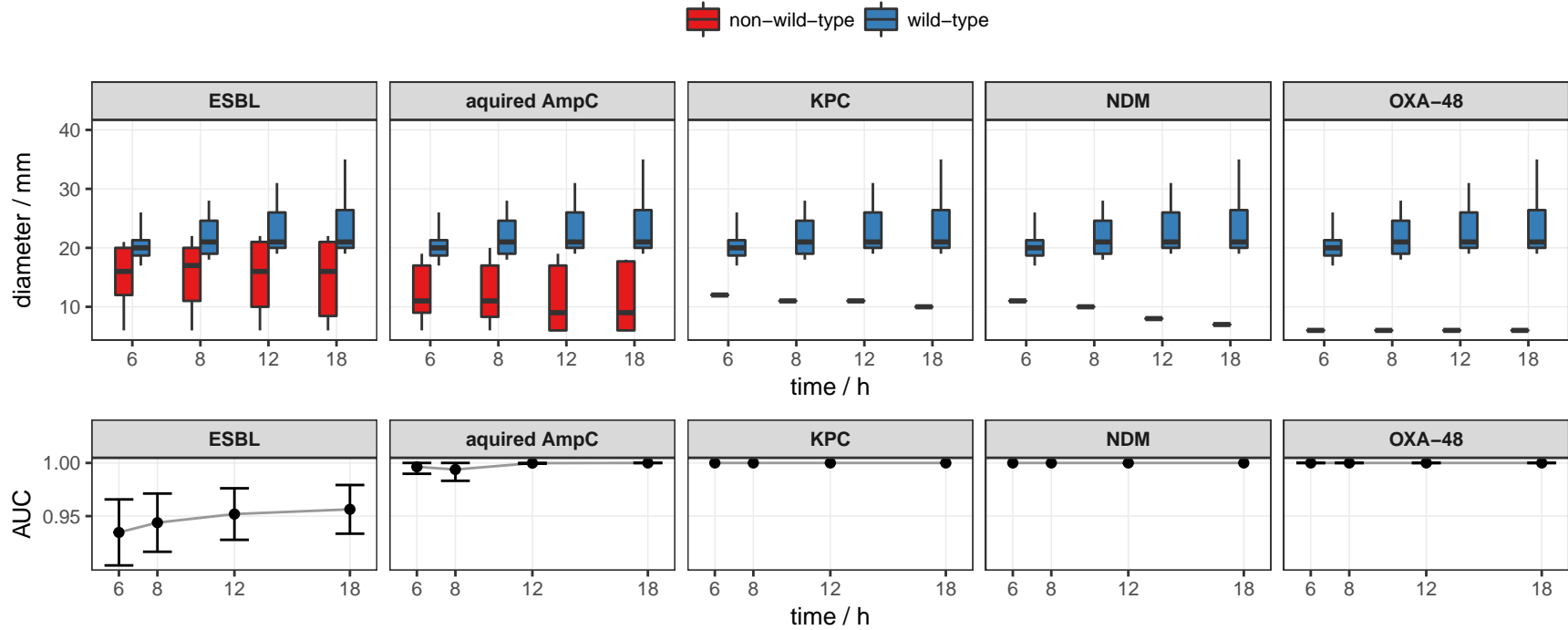
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

3 Amoxicillin clavulanate

3.1 Amoxicillin clavulanate, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100

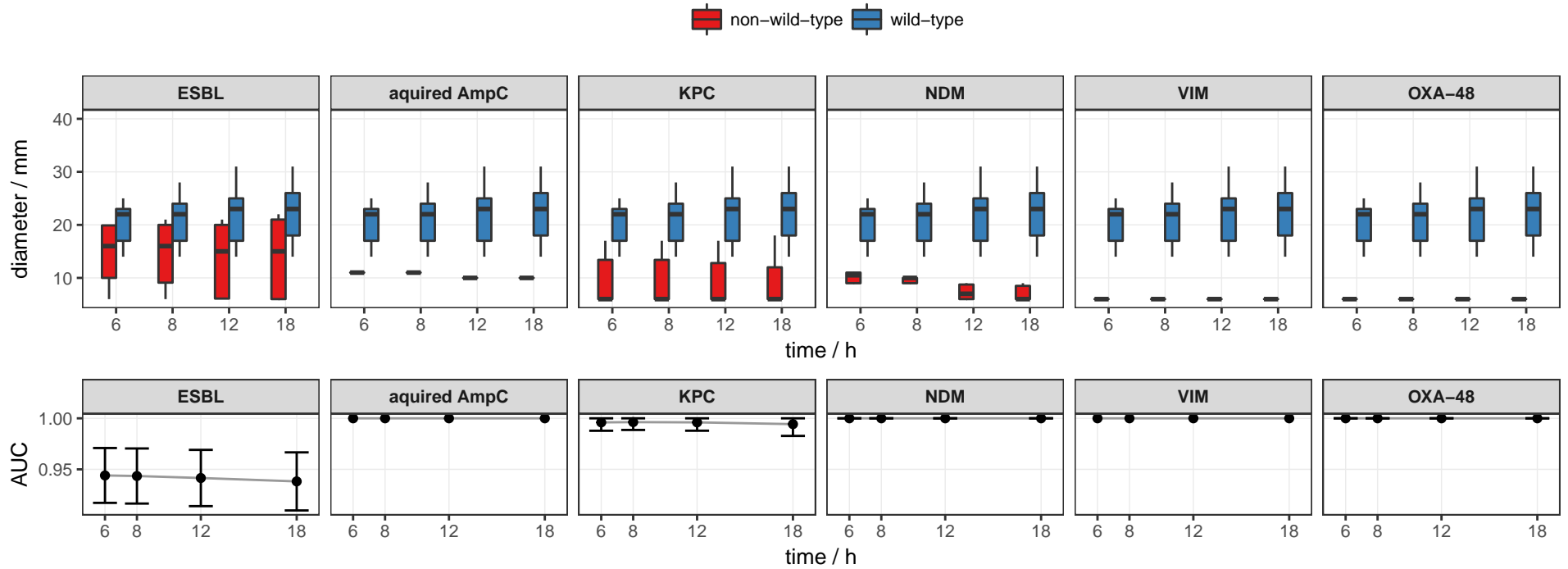


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

3.2 Amoxicillin clavulanate, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	155	99	100	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100



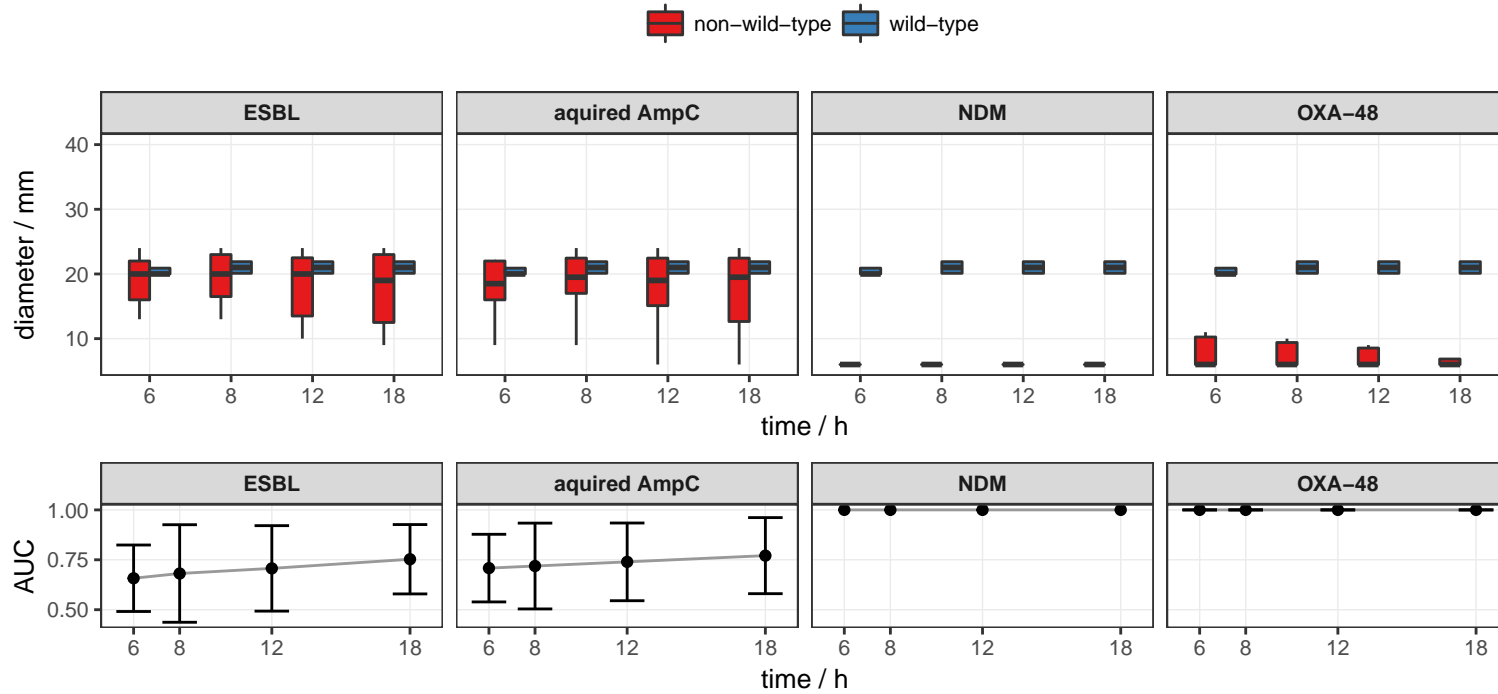
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

4 Temocillin

4.1 Temocillin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	3	100	100	100	100
ESBL	91	100	100	100	100
aquired AmpC	32	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100

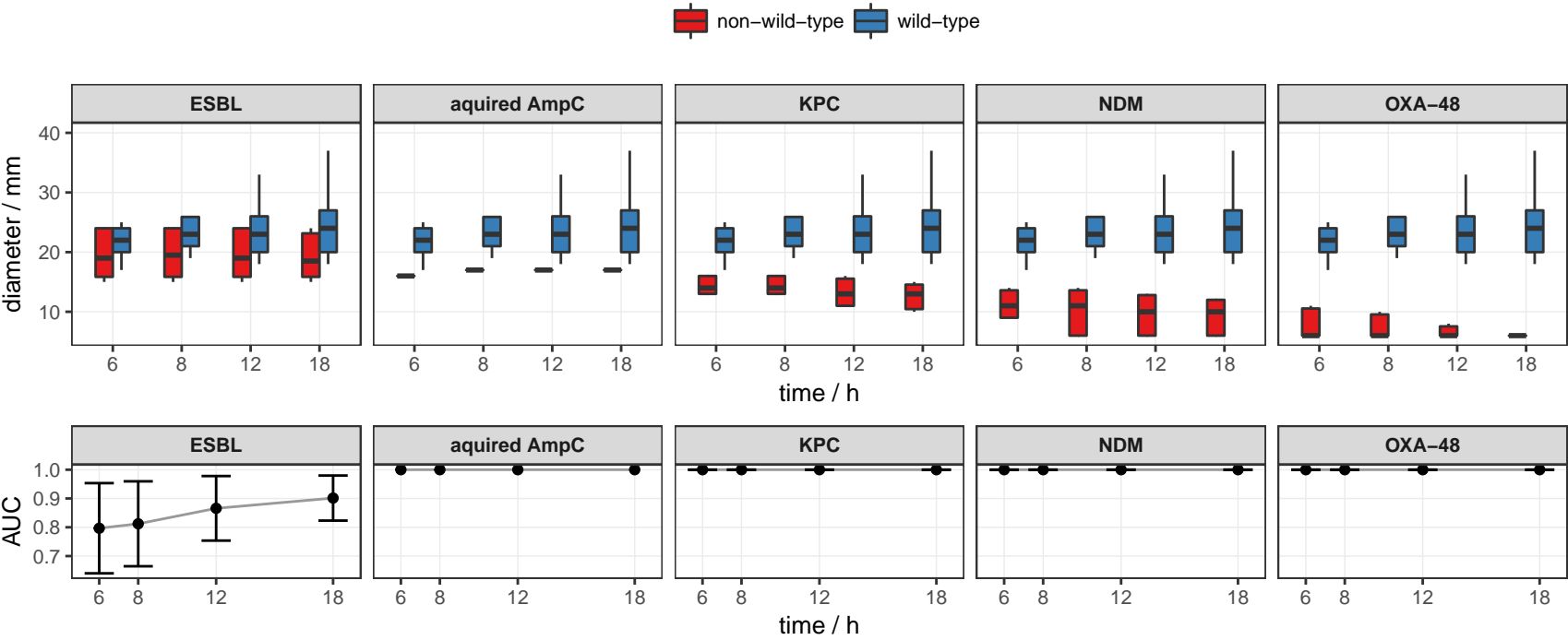


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

4.2 Temocillin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	124	98	99	100	100
ESBL	18	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	10	100	100	100	100
NDM	5	100	100	100	100
OXA-48	10	100	100	100	100

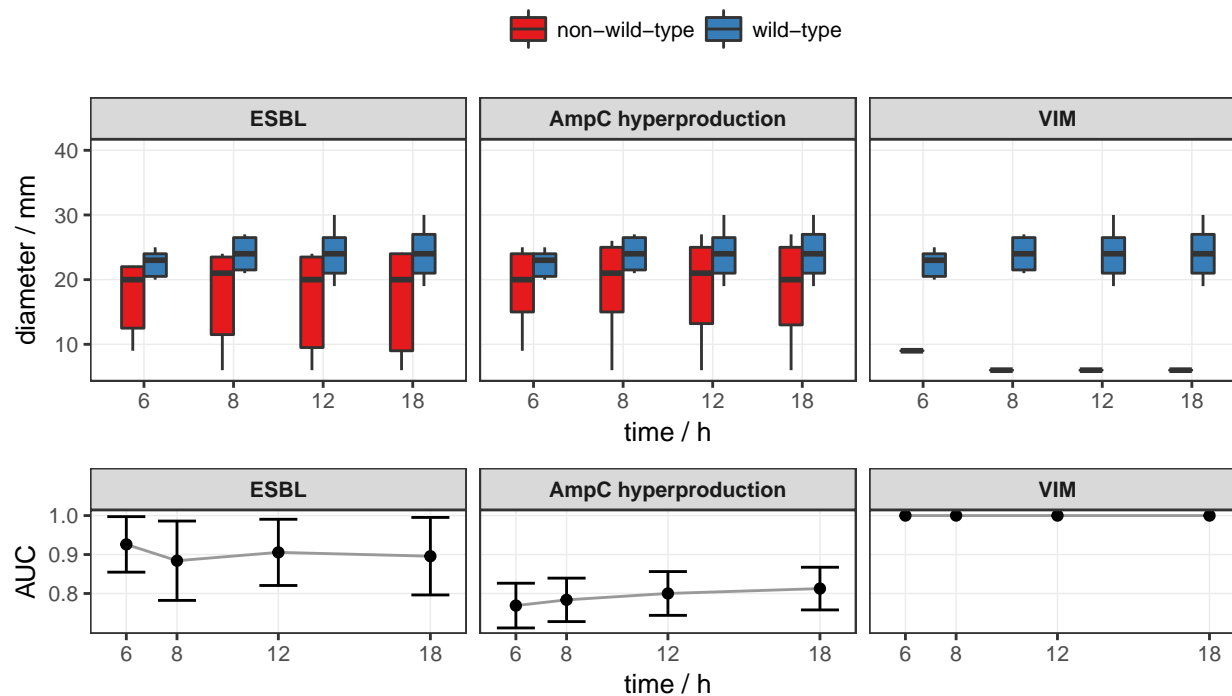


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

4.3 Temocillin, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	51	100	100	100	100
ESBL	11	100	100	100	100
AmpC hyperproduction	205	100	100	100	100
VIM	1	100	100	100	100



(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values.

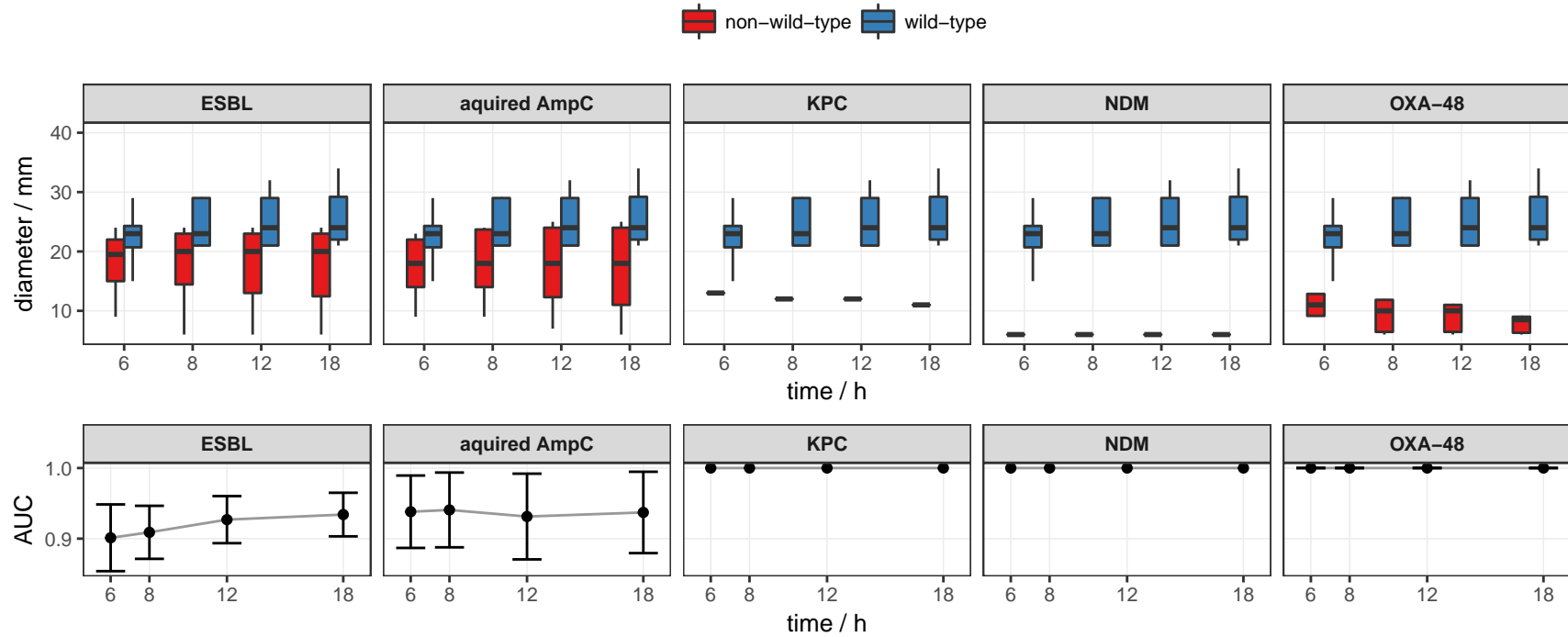
(Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

5 Piperacillin/Tazobactam

5.1 Piperacillin/Tazobactam, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100



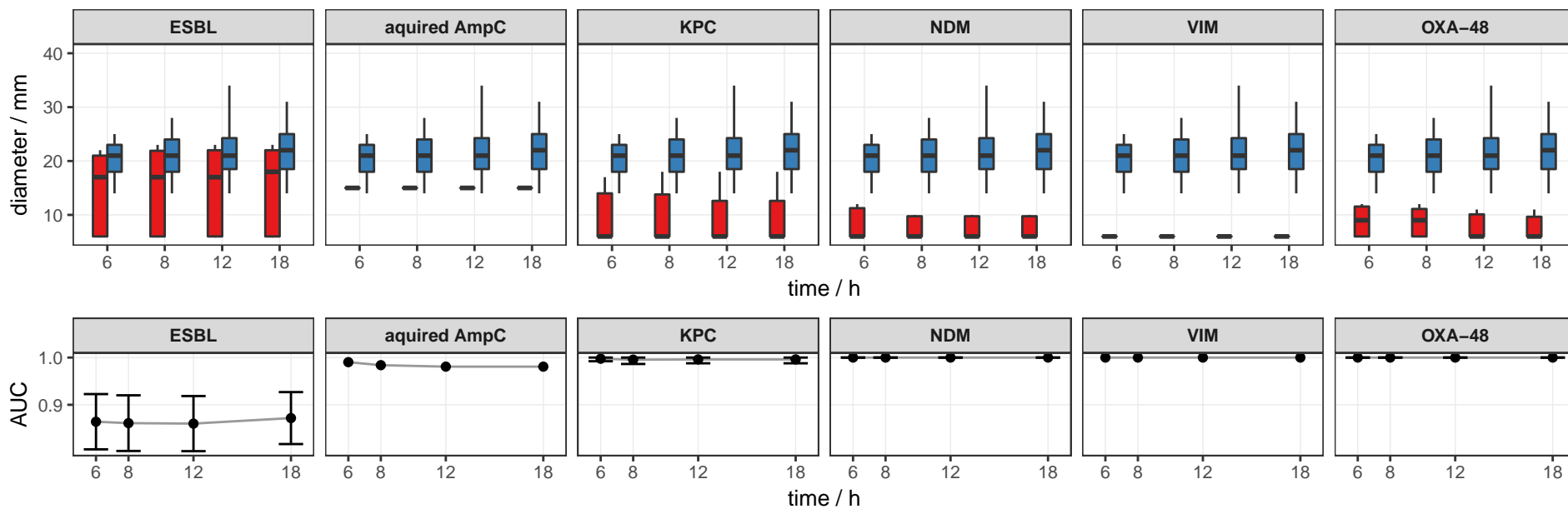
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

5.2 Piperacillin/Tazobactam, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	156	99	99	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

non-wild-type wild-type

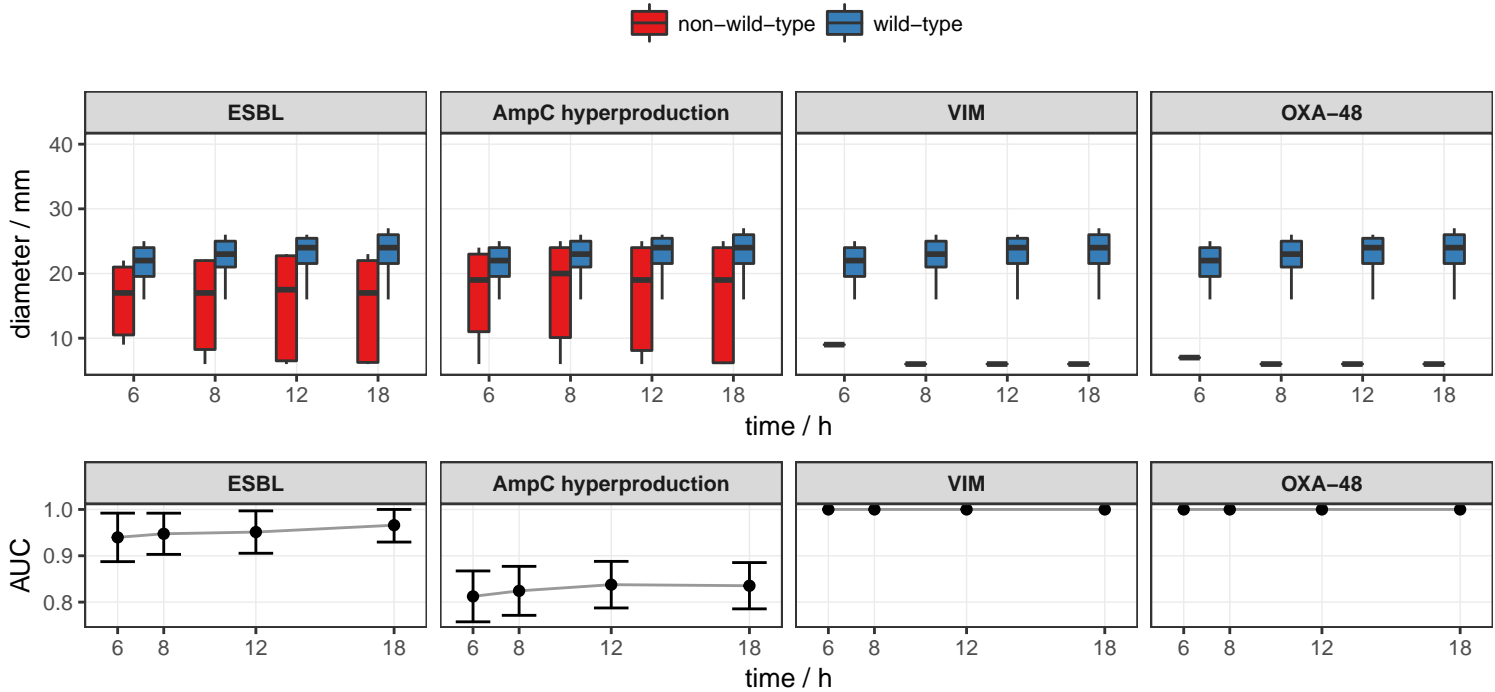


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

5.3 Piperacillin/Tazobactam, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	52	100	100	100	100
ESBL	26	100	100	100	100
AmpC hyperproduction	223	100	100	100	100
VIM	1	100	100	100	100
OXA-48	1	100	100	100	100



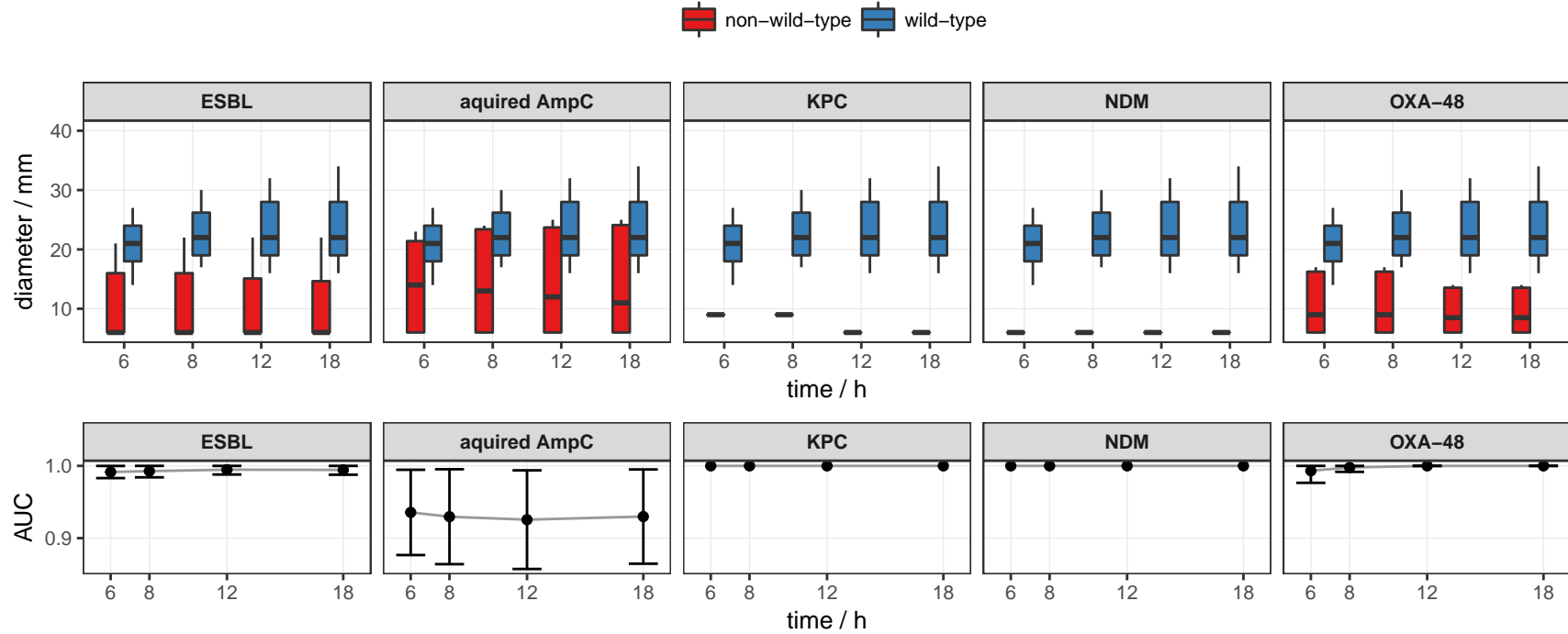
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

6 Cefuroxime

6.1 Cefuroxime, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100

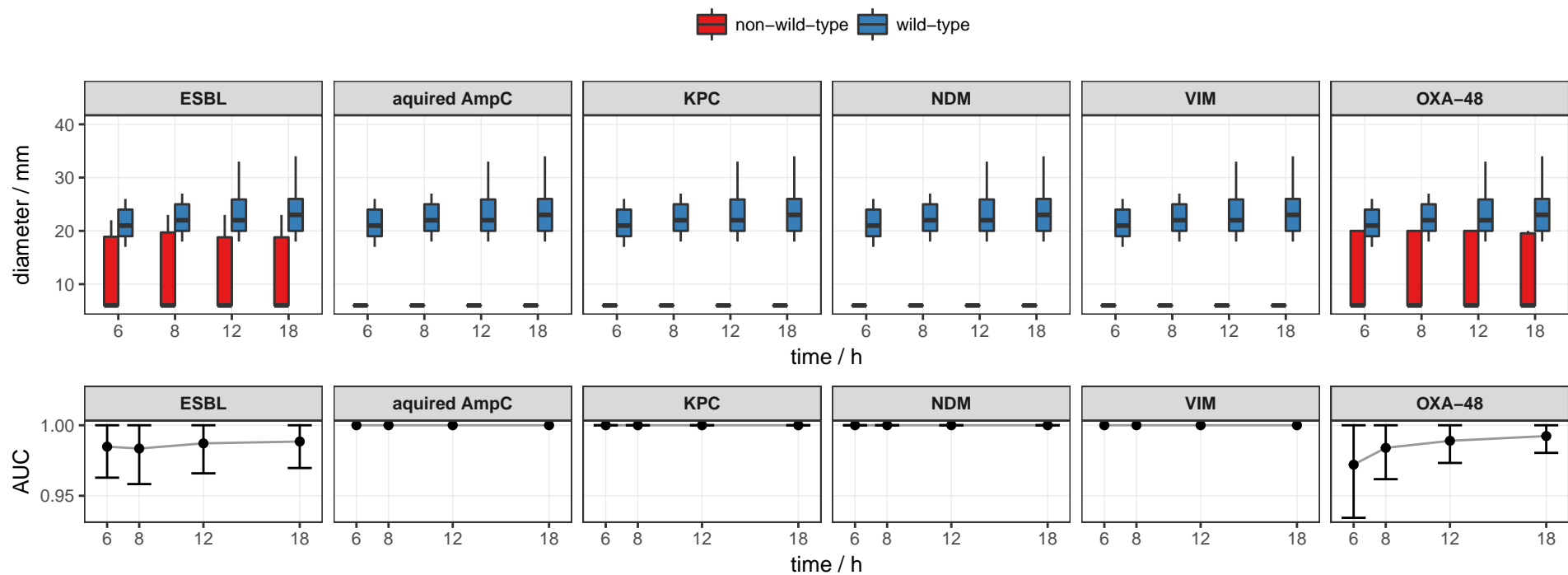


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

6.2 Cefuroxime, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	163	99	99	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

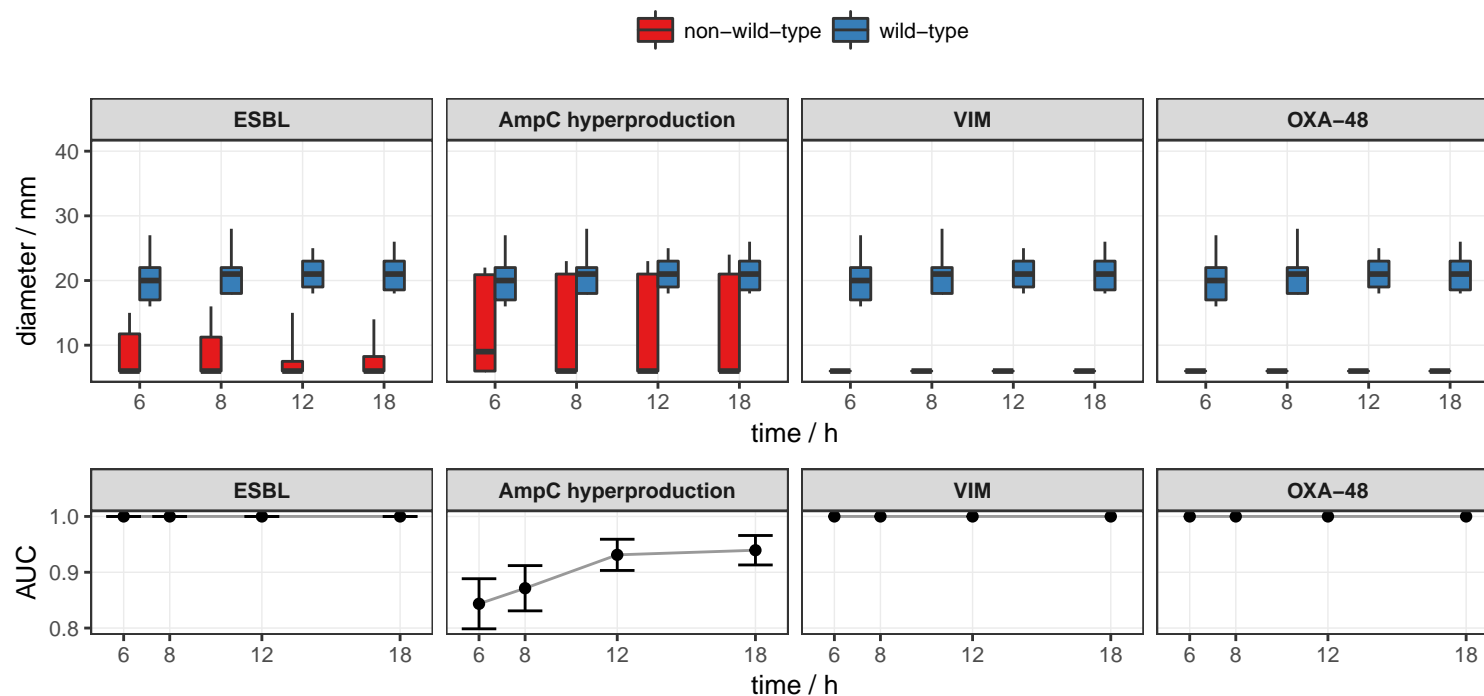


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

6.3 Cefuroxime, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	52	100	100	100	100
ESBL	26	100	100	100	100
AmpC hyperproduction	223	100	100	100	100
VIM	1	100	100	100	100
OXA-48	1	100	100	100	100



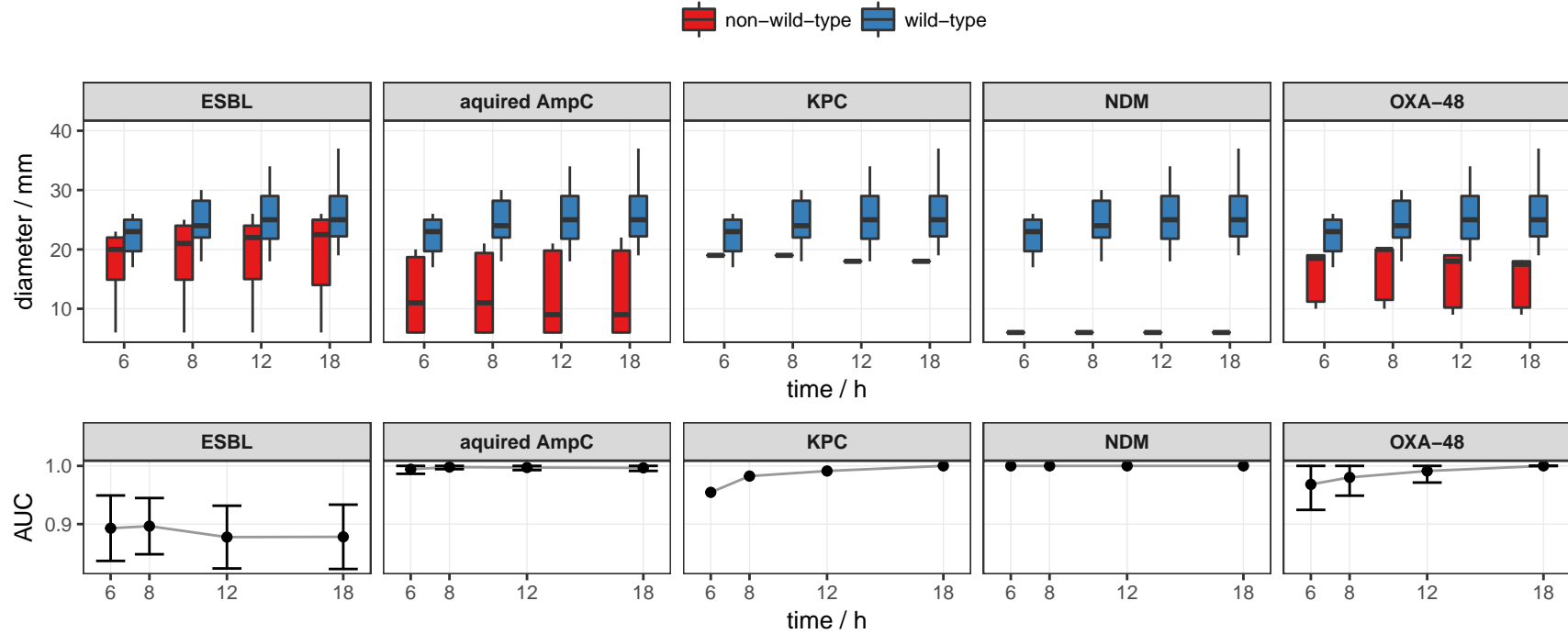
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

7 Cefoxitin

7.1 Cefoxitin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100



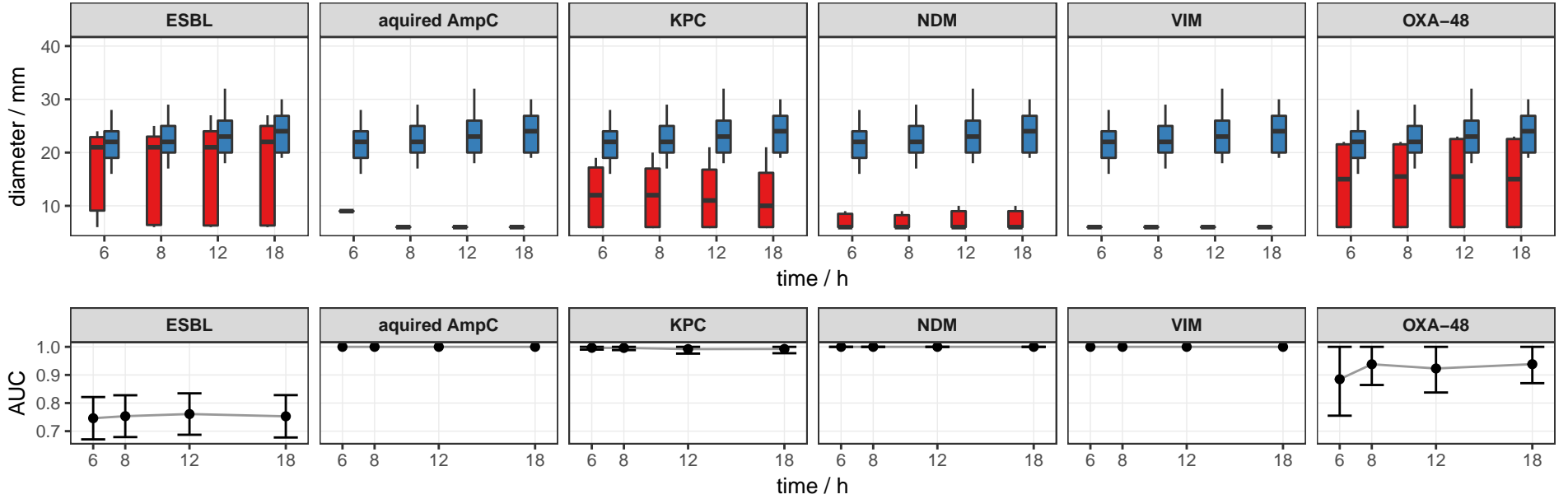
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

7.2 Cefoxitin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	163	99	100	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

non-wild-type wild-type

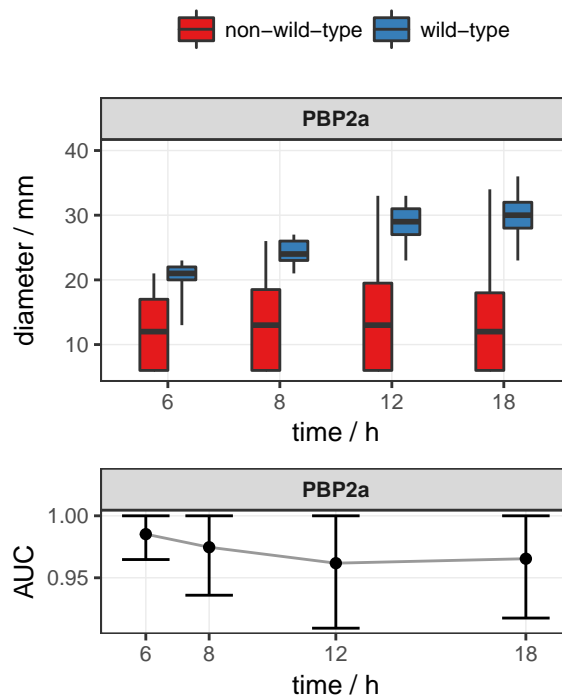


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

7.3 Cefoxitin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	158	95	99	100	100
PBP2a	51	98	100	100	100

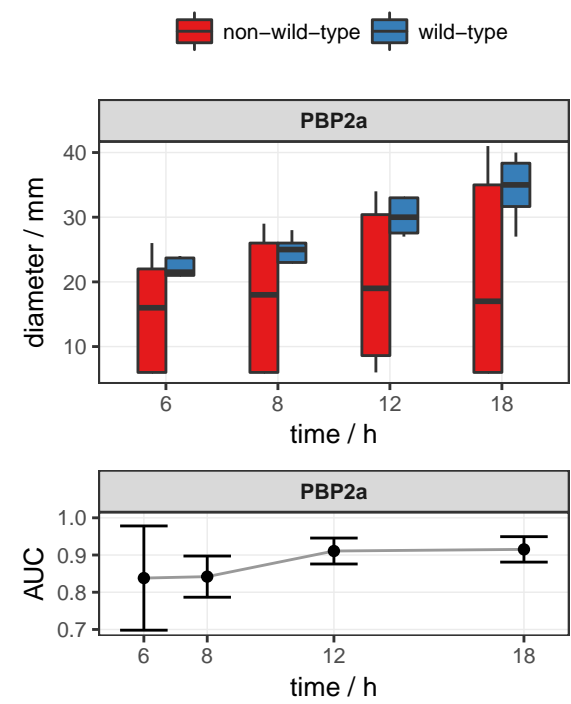


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

7.4 Cefoxitin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	34	12	62	94	100
PBP2a	256	17	67	99	100



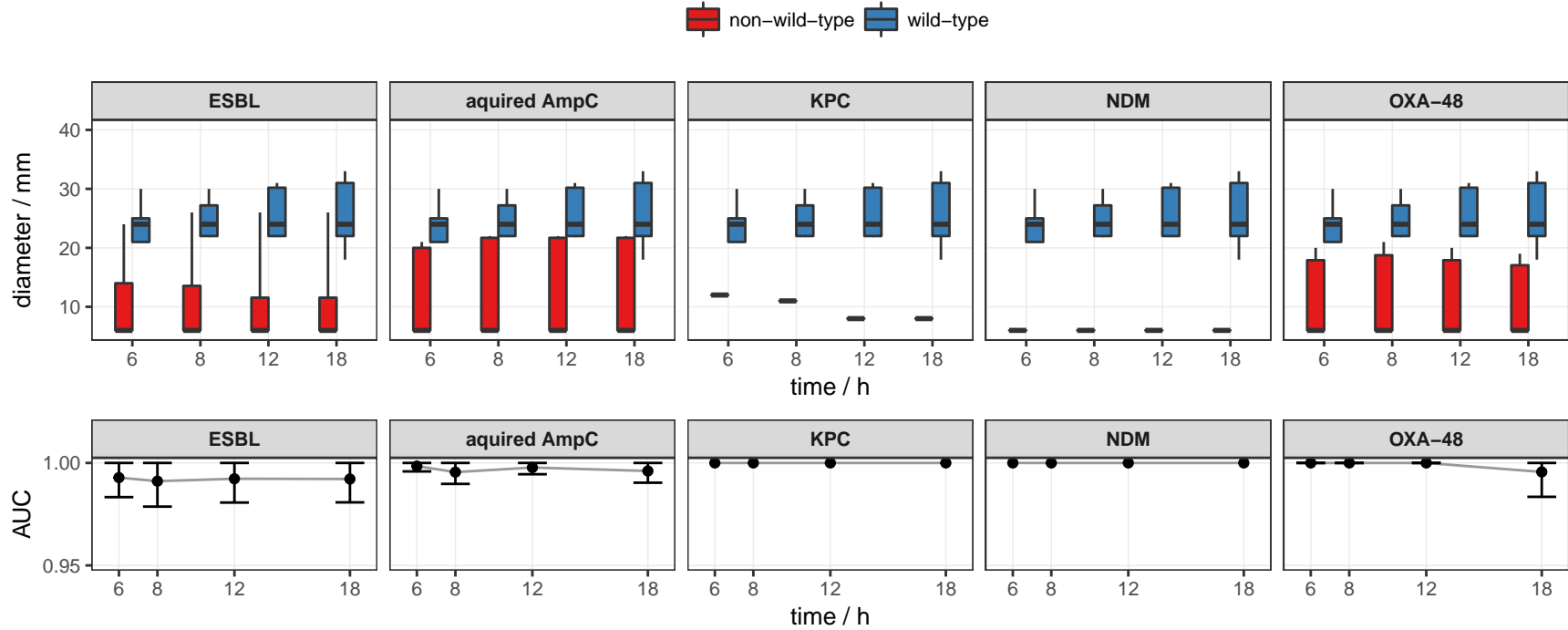
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

8 Cefpodoxime

8.1 Cefpodoxime, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100

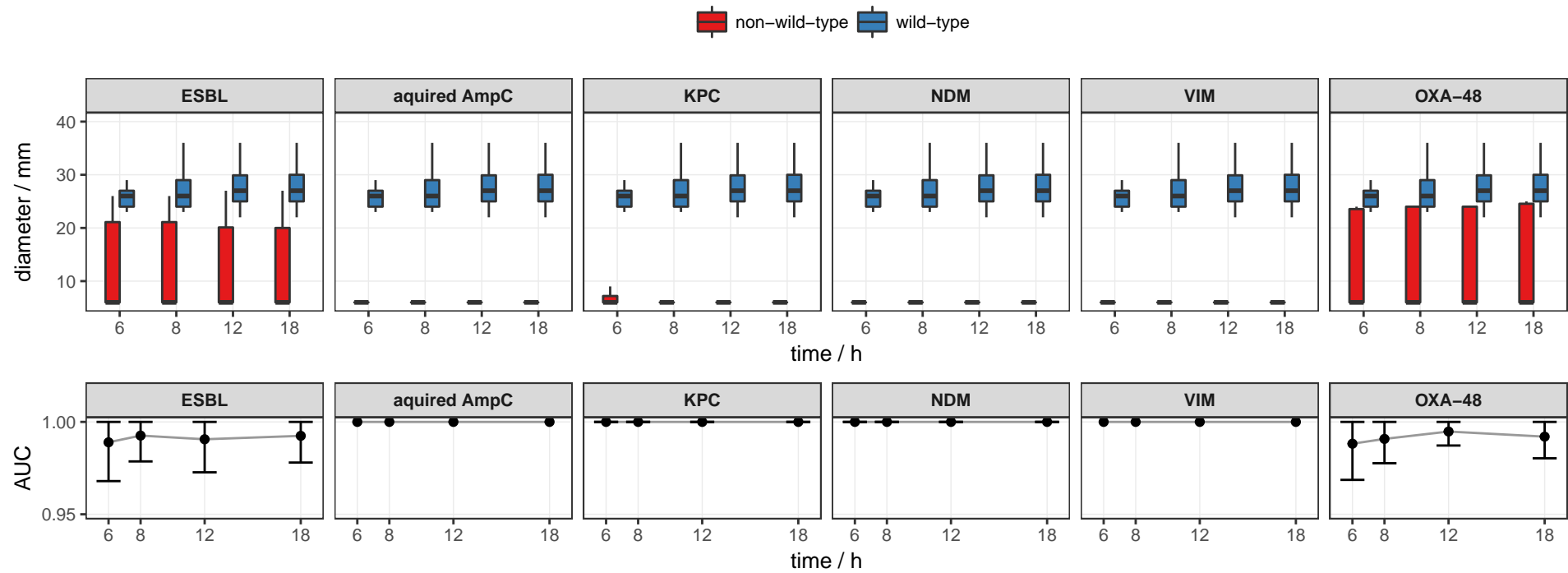


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

8.2 Cefpodoxime, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	163	99	100	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

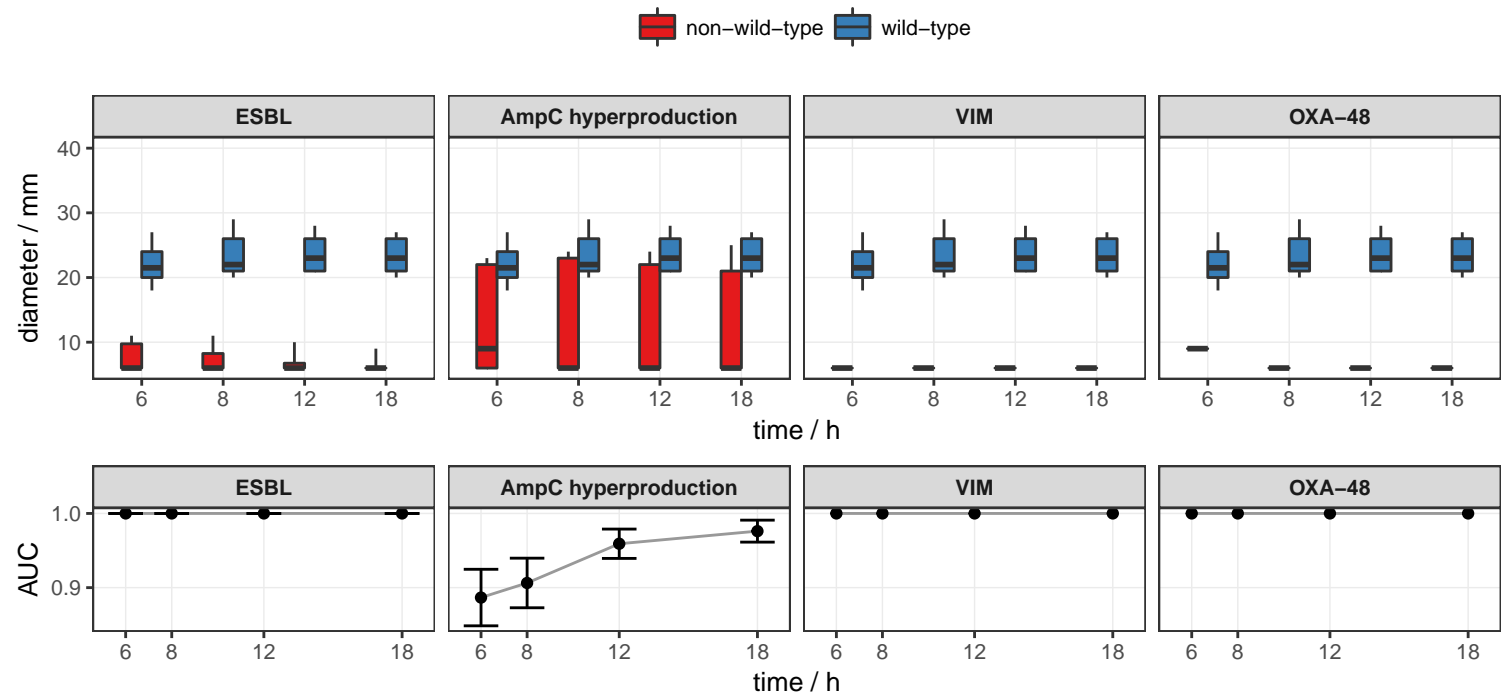


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

8.3 Cefpodoxime, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	52	100	100	100	100
ESBL	26	100	100	100	100
AmpC hyperproduction	223	100	100	100	100
VIM	1	100	100	100	100
OXA-48	1	100	100	100	100



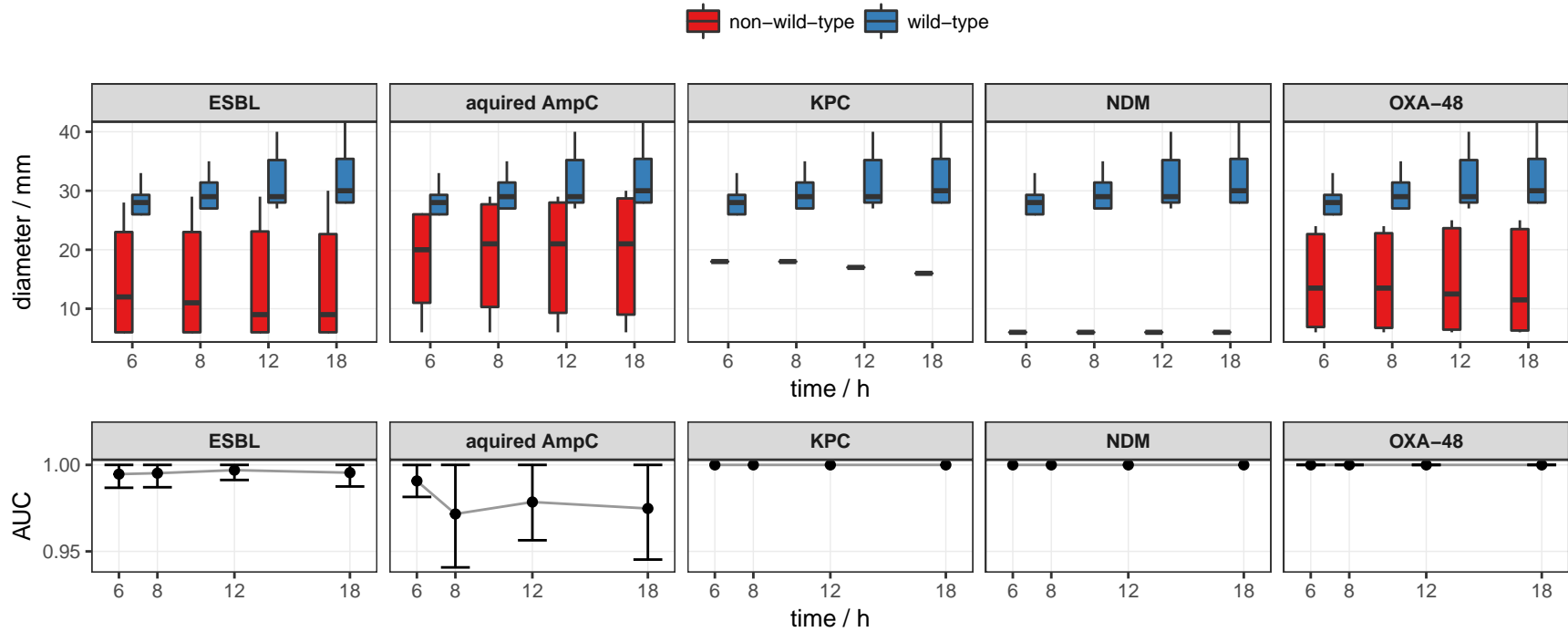
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

9 Ceftriaxone

9.1 Ceftriaxone, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100

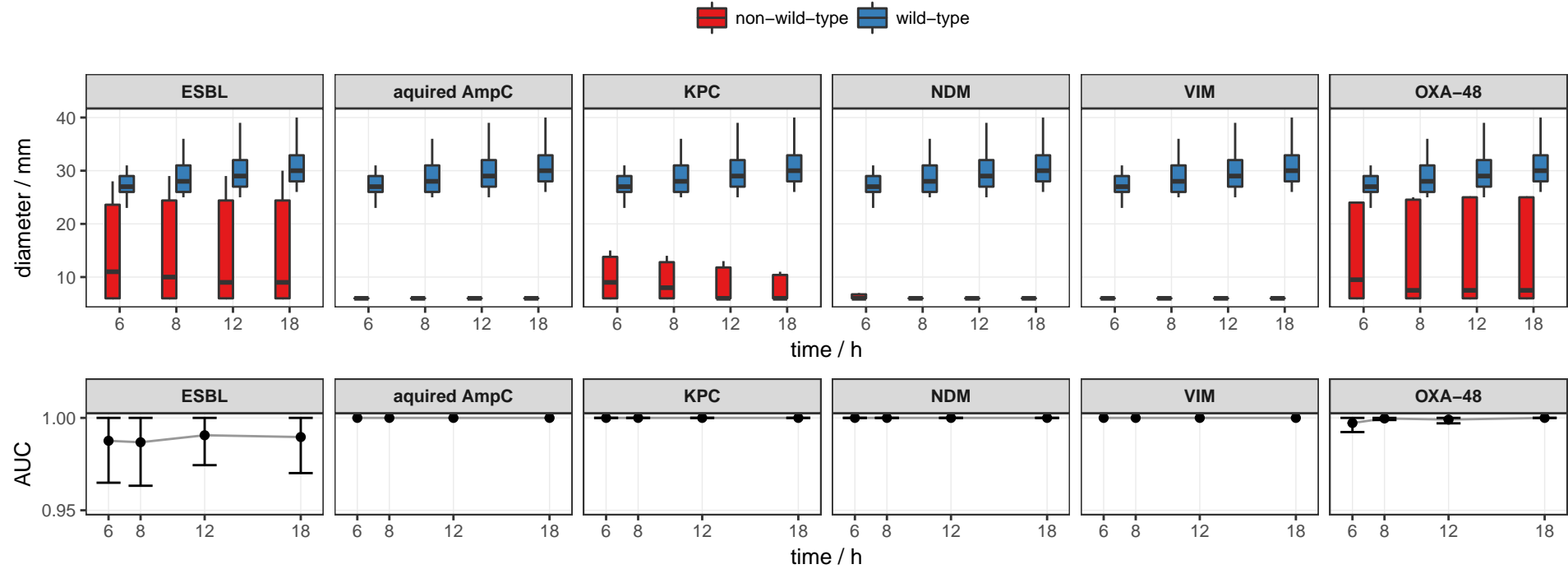


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

9.2 Ceftriaxone, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	163	99	100	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

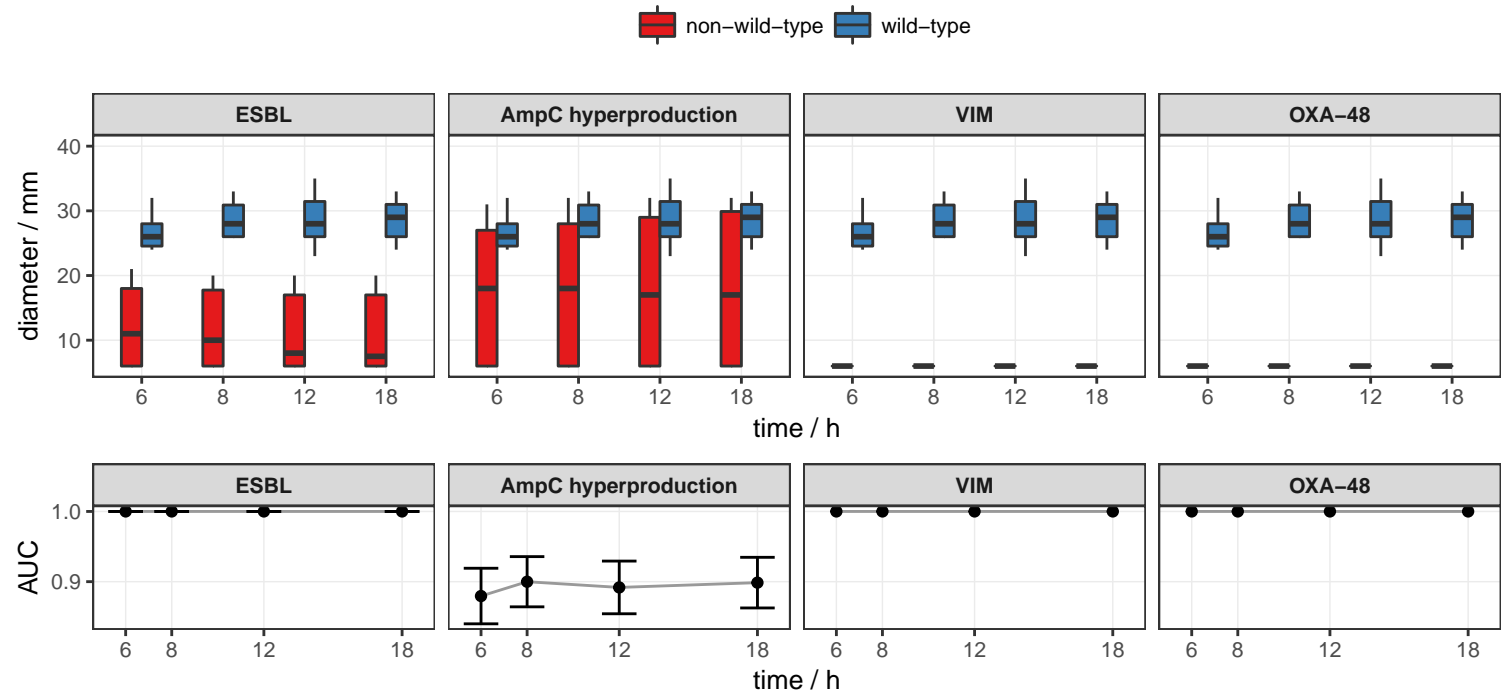


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

9.3 Ceftriaxone, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	52	100	100	100	100
ESBL	26	100	100	100	100
AmpC hyperproduction	223	100	100	100	100
VIM	1	100	100	100	100
OXA-48	1	100	100	100	100



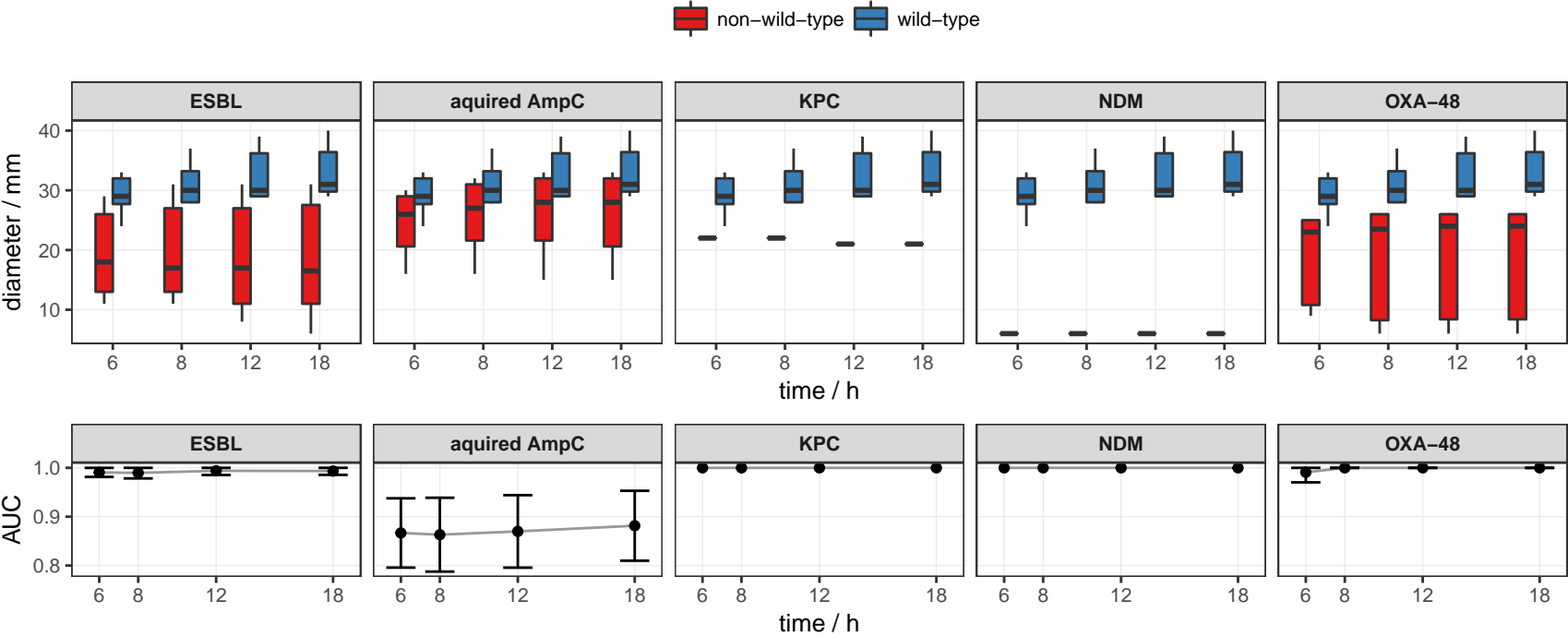
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

10 Cefepime

10.1 Cefepime, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100

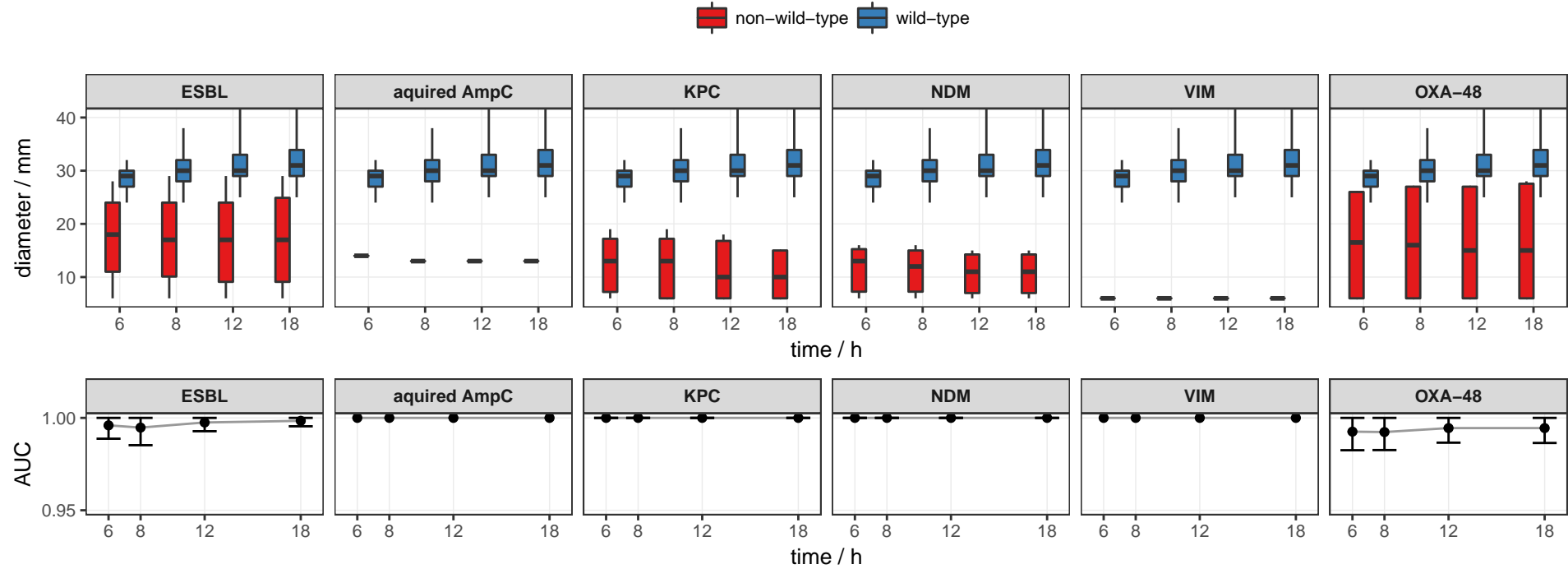


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

10.2 Cefepime, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	163	99	100	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

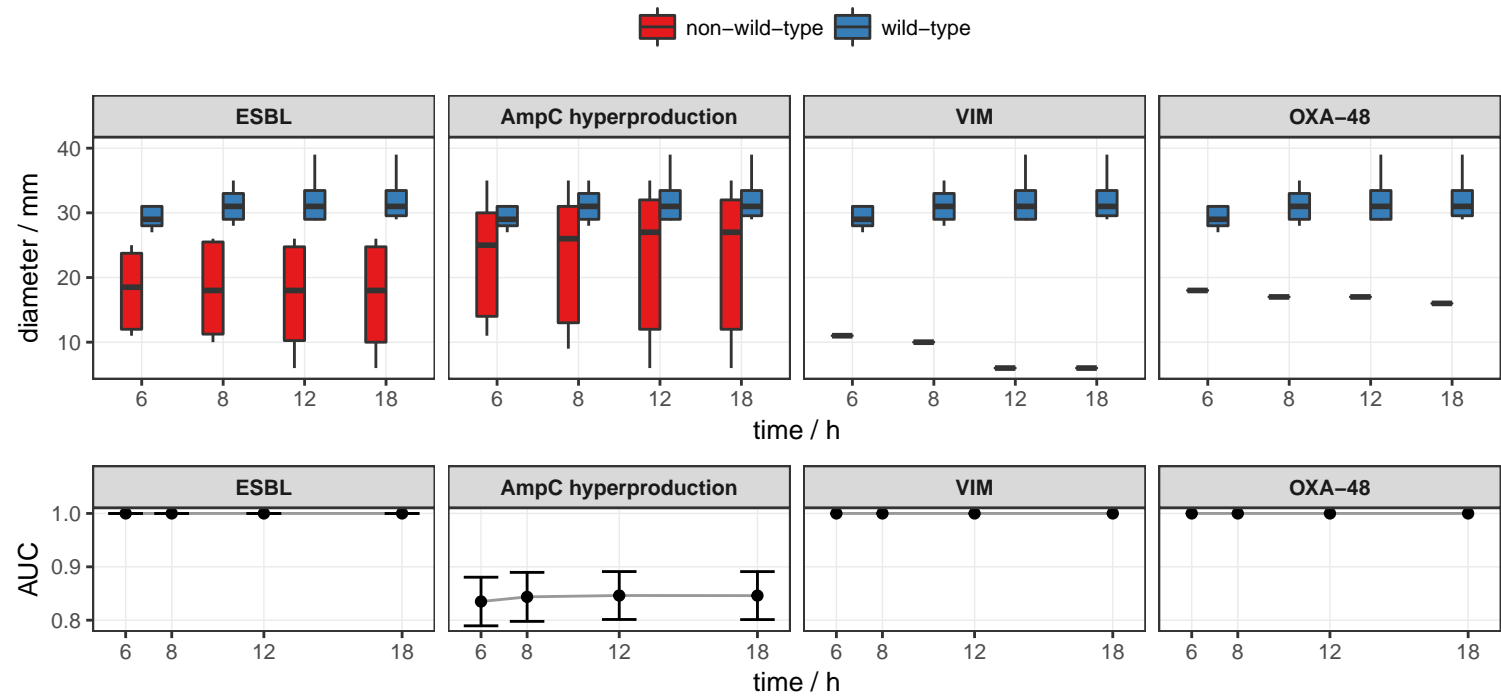


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

10.3 Cefepime, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	52	100	100	100	100
ESBL	26	100	100	100	100
AmpC hyperproduction	223	100	100	100	100
VIM	1	100	100	100	100
OXA-48	1	100	100	100	100



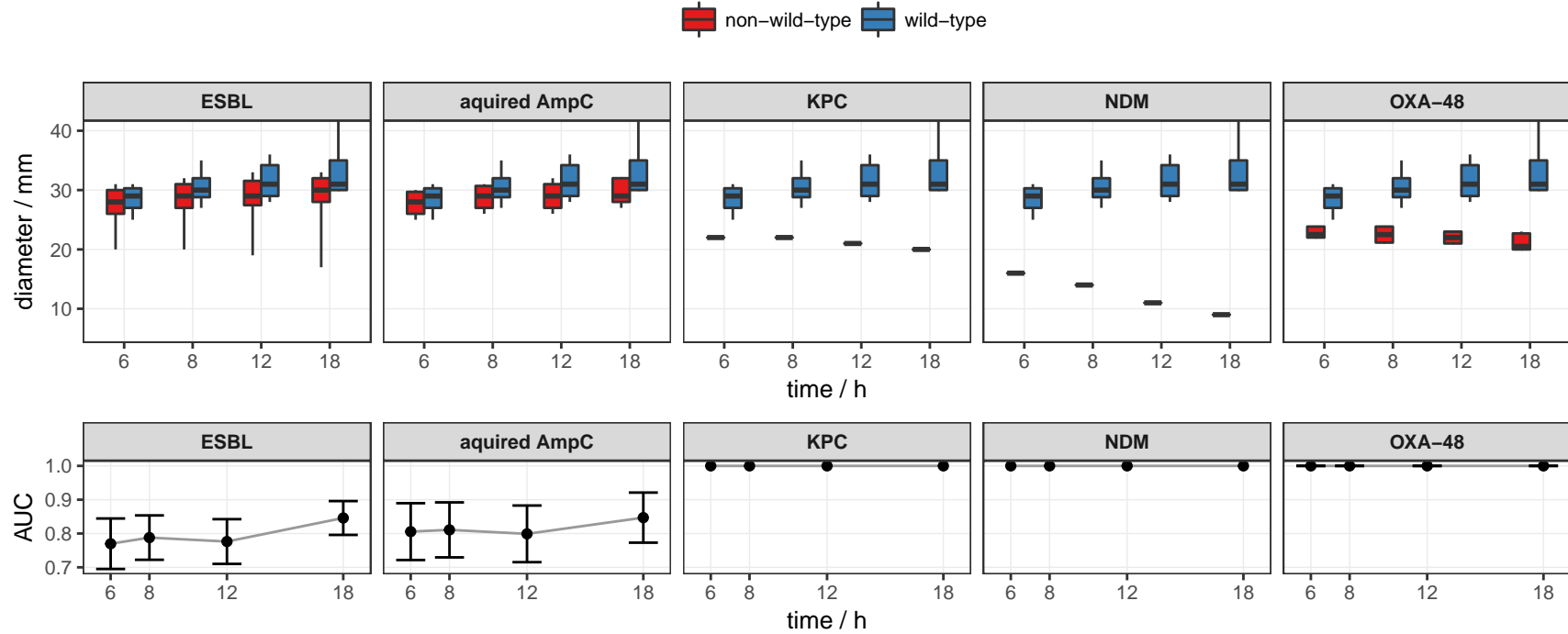
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

11 Meropenem

11.1 Meropenem, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	57	96	100	100	100
ESBL	150	100	100	100	100
aquired AmpC	47	100	100	100	100
KPC	1	100	100	100	100
NDM	1	100	100	100	100
OXA-48	4	100	100	100	100



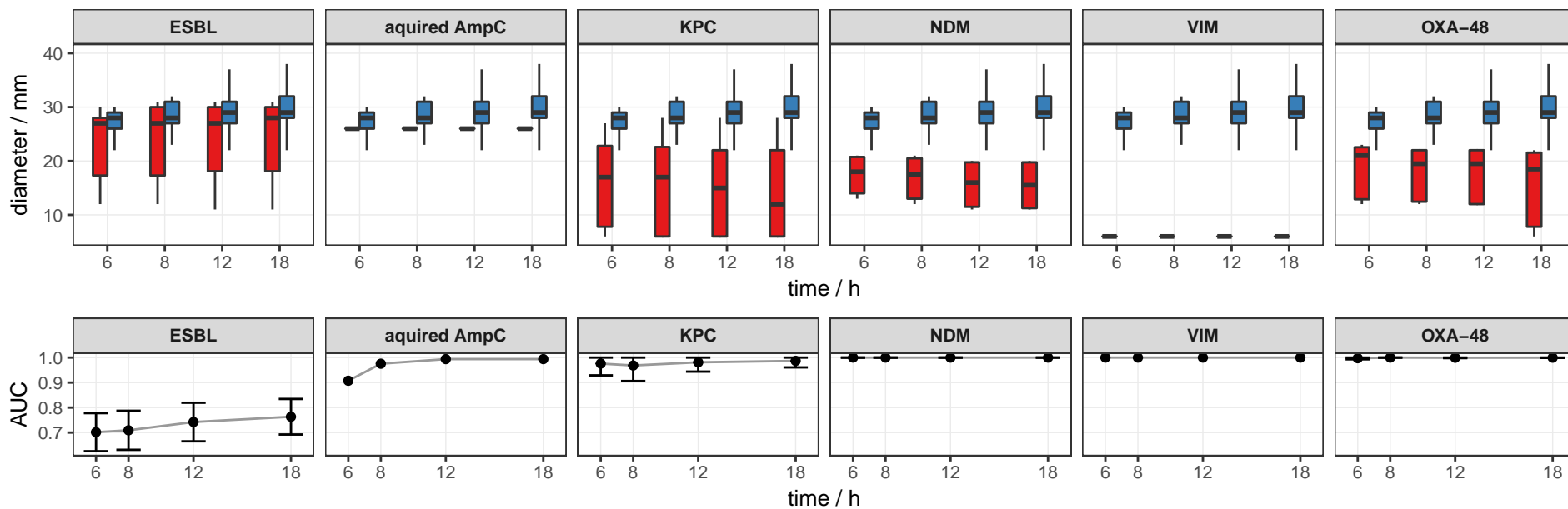
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

11.2 Meropenem, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	163	99	100	100	100
ESBL	63	100	100	100	100
aquired AmpC	1	100	100	100	100
KPC	13	100	100	100	100
NDM	6	100	100	100	100
VIM	1	100	100	100	100
OXA-48	10	100	100	100	100

non-wild-type wild-type

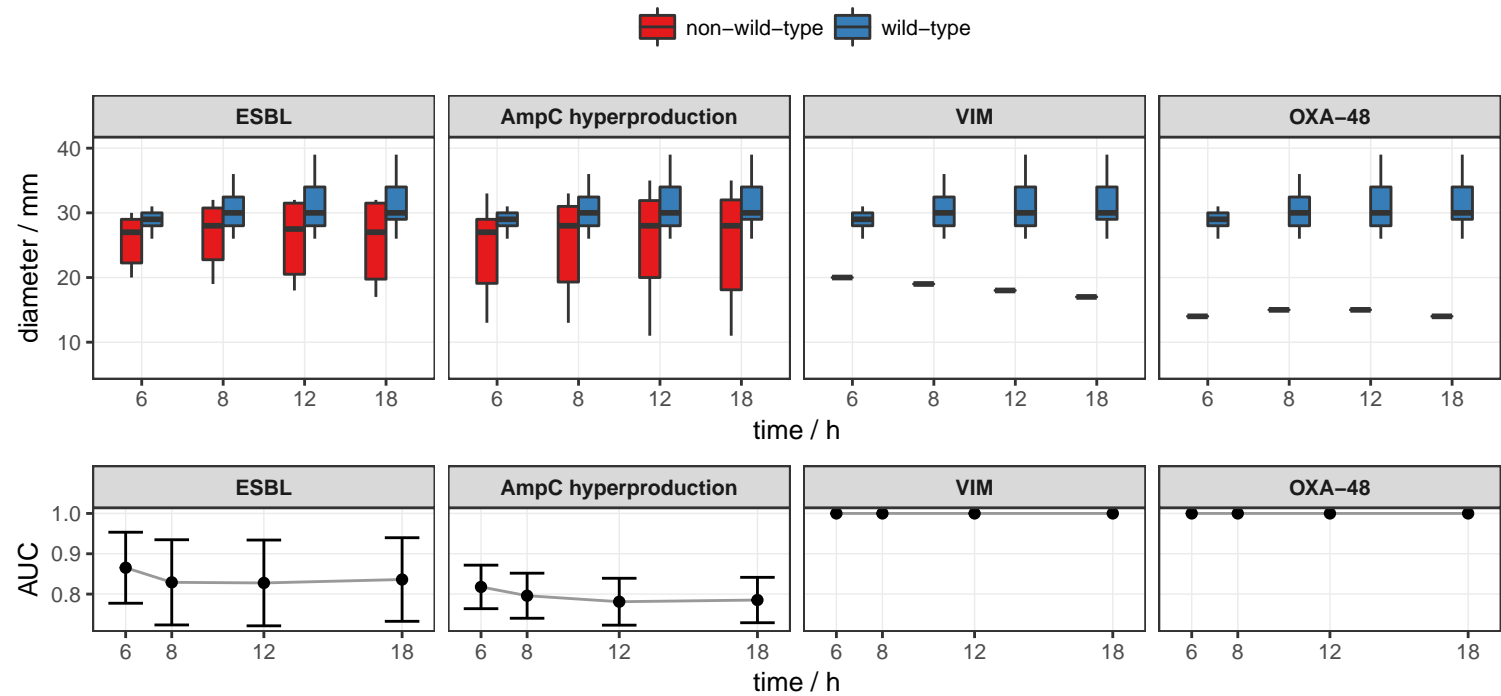


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

11.3 Meropenem, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	52	100	100	100	100
ESBL	26	100	100	100	100
AmpC hyperproduction	223	100	100	100	100
VIM	1	100	100	100	100
OXA-48	1	100	100	100	100



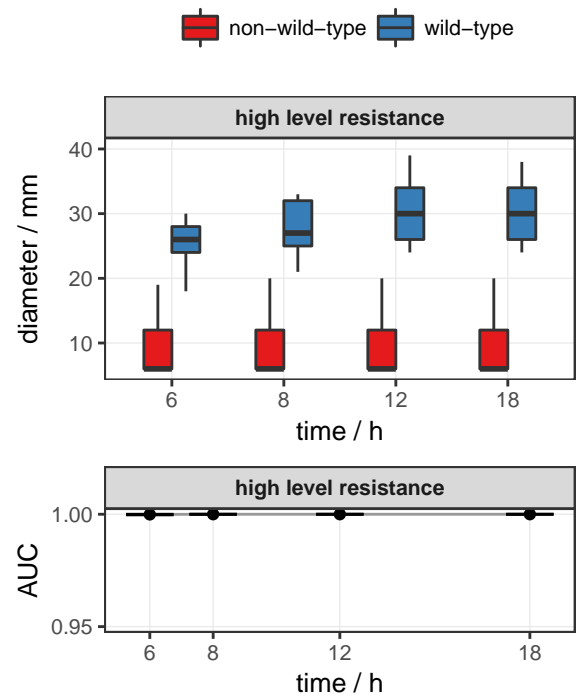
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

12 Norfloxacin

12.1 Norfloxacin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	135	100	100	100	100
high level resistance	259	100	100	100	100

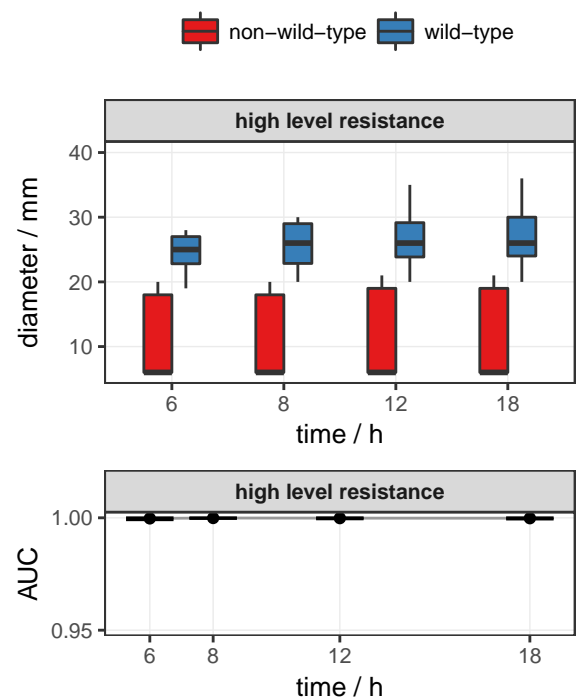


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

12.2 Norfloxacin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	118	99	100	100	100
high level resistance	140	100	100	100	100

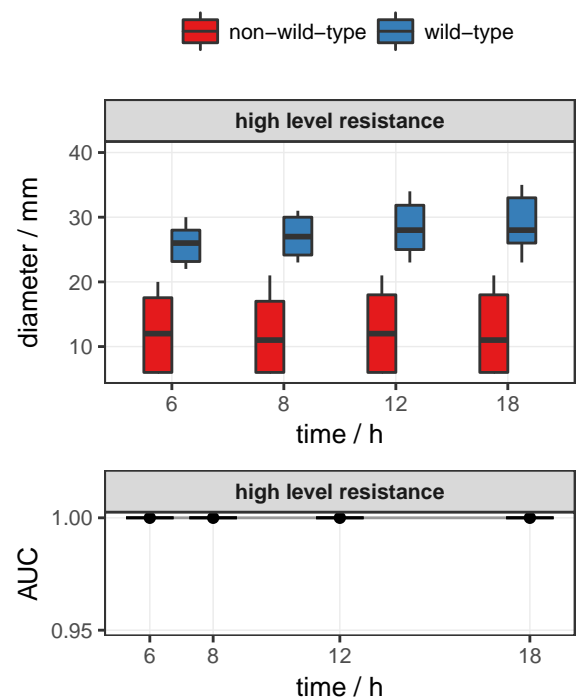


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

12.3 Norfloxacin, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	144	100	100	100	100
high level resistance	92	98	99	99	100

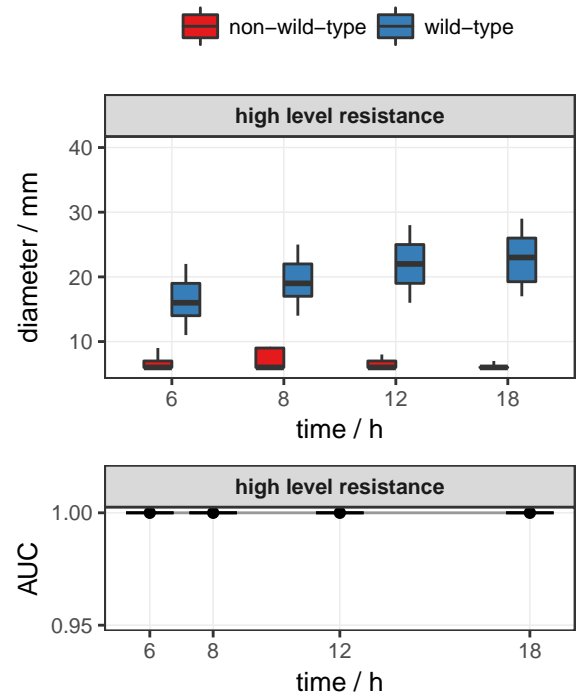


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

12.4 Norfloxacin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	326	97	100	100	100
high level resistance	58	98	100	100	100

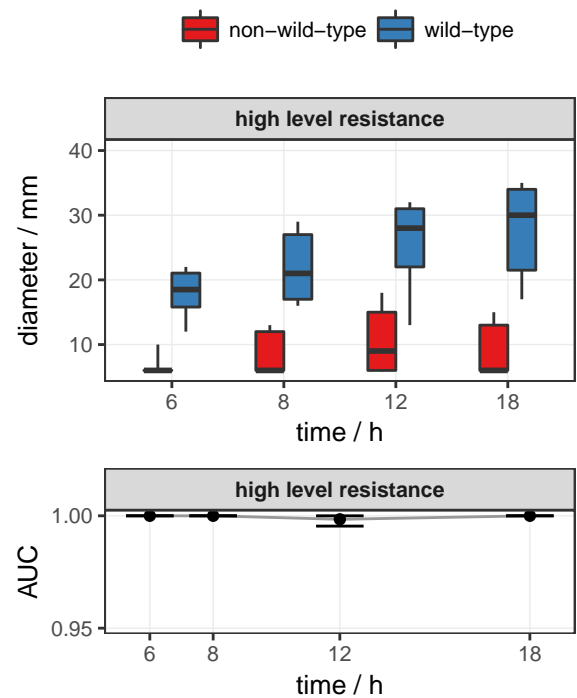


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

12.5 Norfloxacin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	111	18	69	97	100
high level resistance	178	32	49	99	100



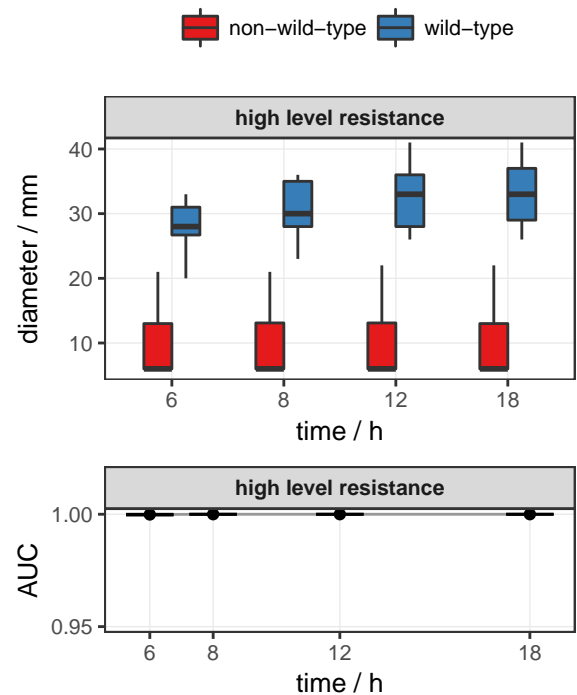
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

13 Ciprofloxacin

13.1 Ciprofloxacin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	135	100	100	100	100
high level resistance	259	99	100	100	100

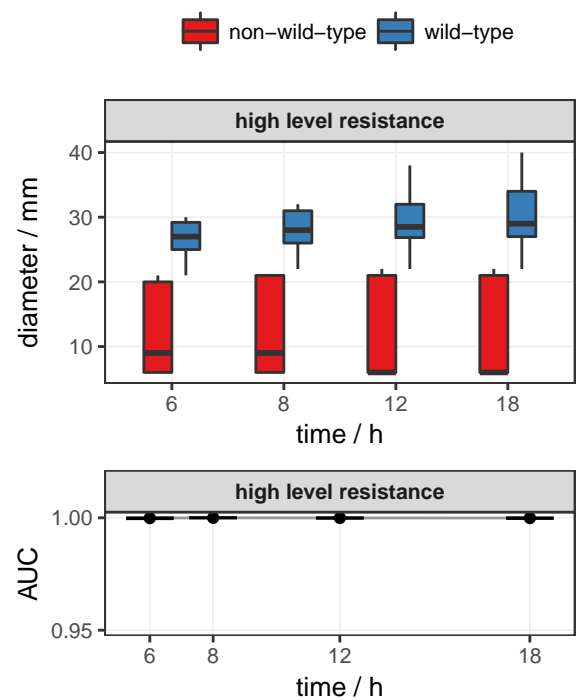


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

13.2 Ciprofloxacin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	118	99	100	100	100
high level resistance	140	100	100	100	100

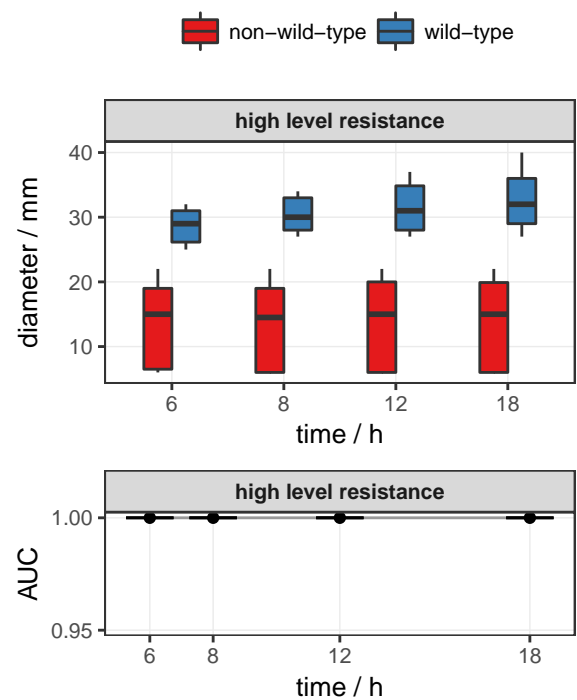


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

13.3 Ciprofloxacin, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	144	100	100	100	100
high level resistance	92	99	100	100	100

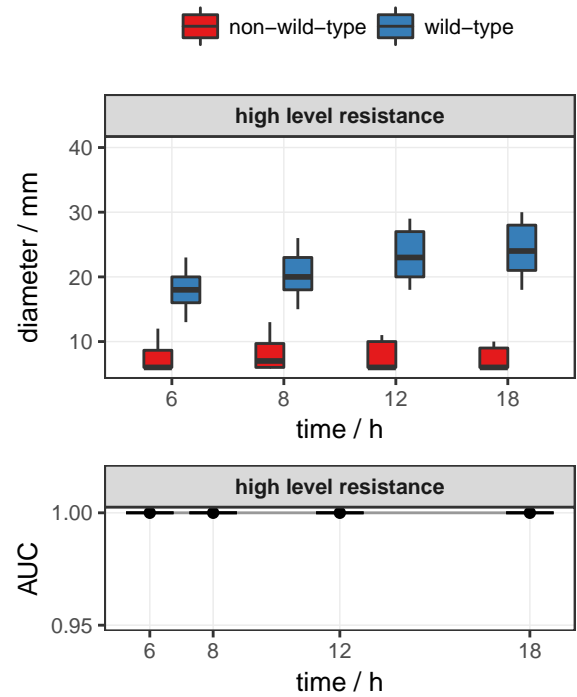


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

13.4 Ciprofloxacin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	326	96	100	100	100
high level resistance	58	83	93	100	100

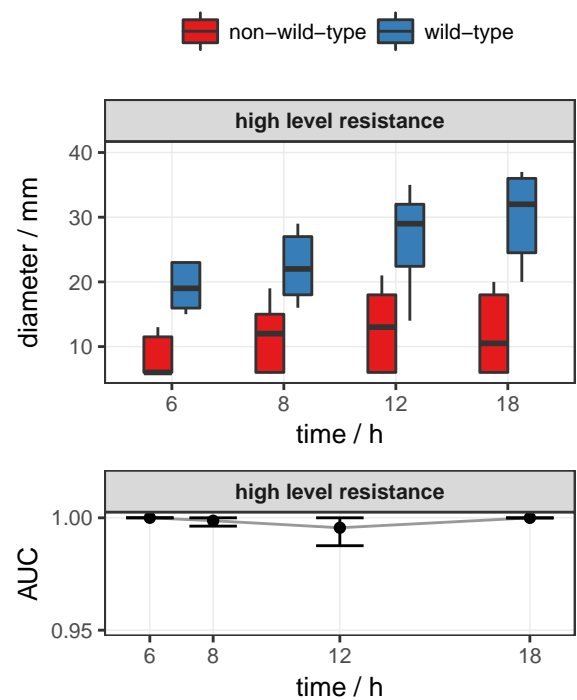


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

13.5 Ciprofloxacin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	111	18	67	98	100
high level resistance	178	26	56	96	100



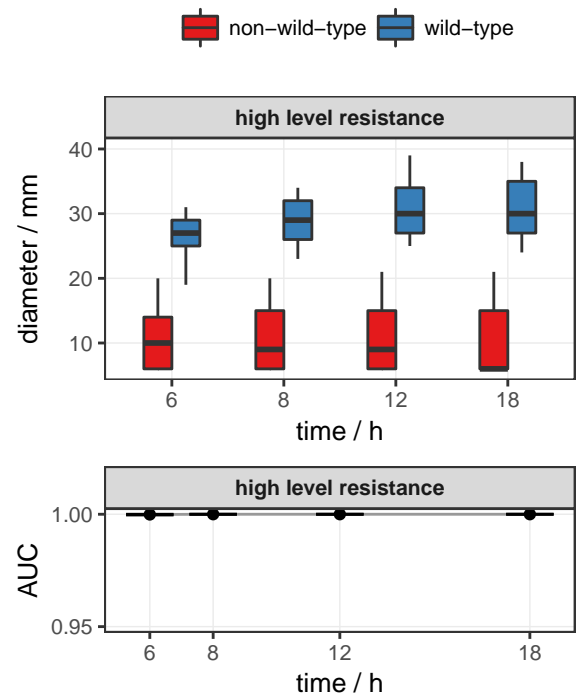
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

14 Levofloxacin

14.1 Levofloxacin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	135	100	100	100	100
high level resistance	259	98	100	100	100

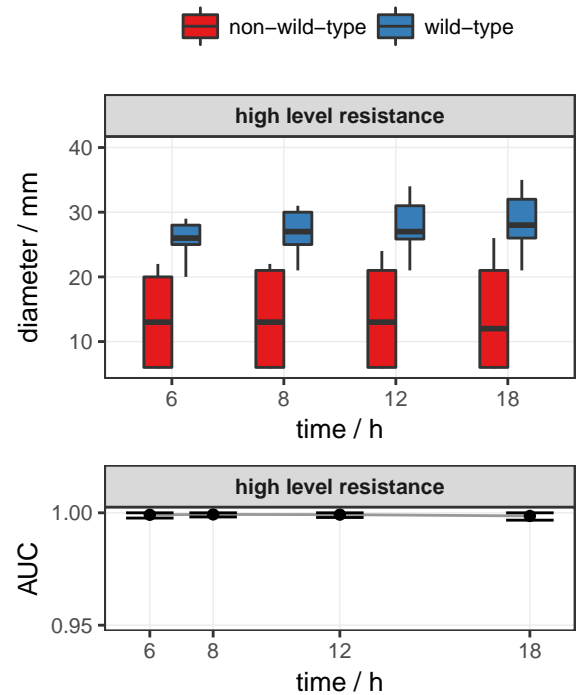


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

14.2 Levofloxacin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	118	99	100	100	100
high level resistance	140	100	100	100	100

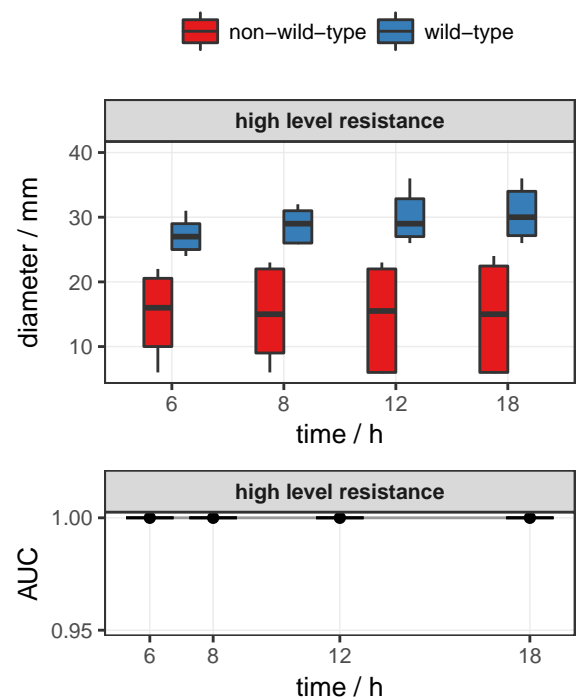


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

14.3 Levofloxacin, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	144	100	100	100	100
high level resistance	92	98	100	100	100

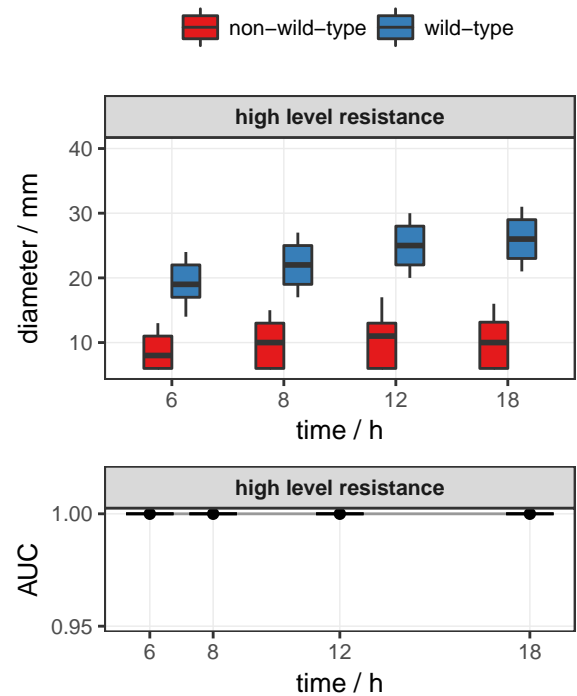


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

14.4 Levofloxacin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	326	96	100	100	100
high level resistance	58	81	97	100	100

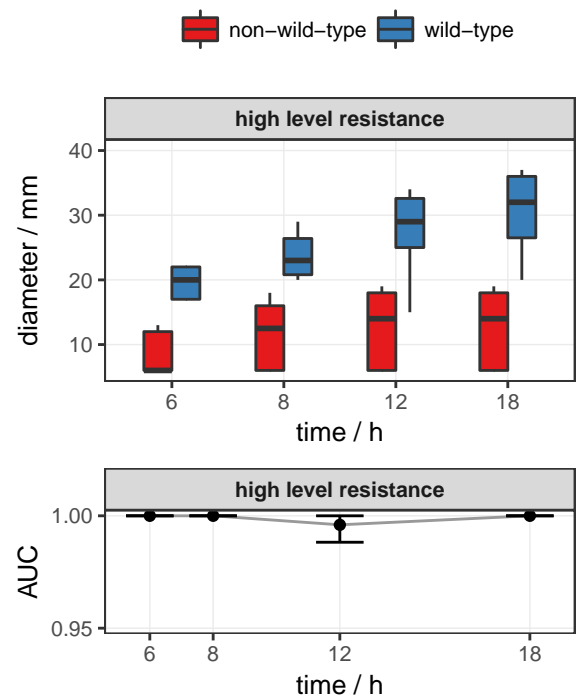


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

14.5 Levofloxacin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	111	17	69	98	100
high level resistance	178	15	53	95	100



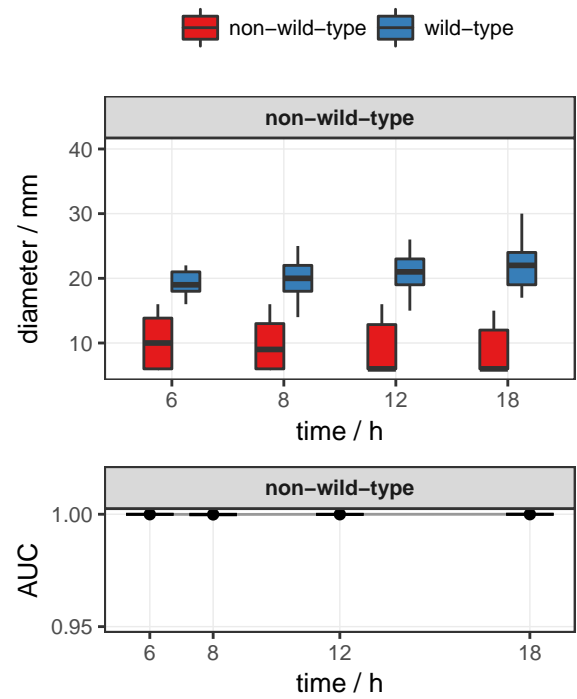
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

15 Gentamicin

15.1 Gentamicin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	349	99	100	100	100
non-wild-type	124	100	100	100	100

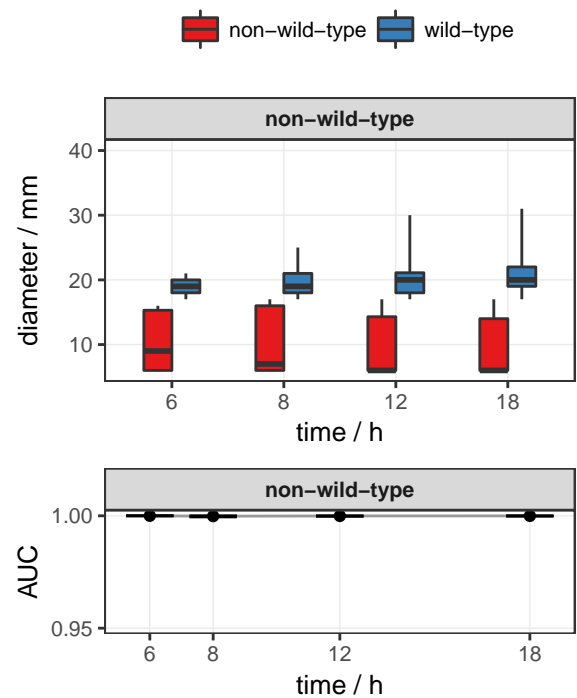


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

15.2 Gentamicin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	299	98	100	100	100
non-wild-type	75	100	100	100	100

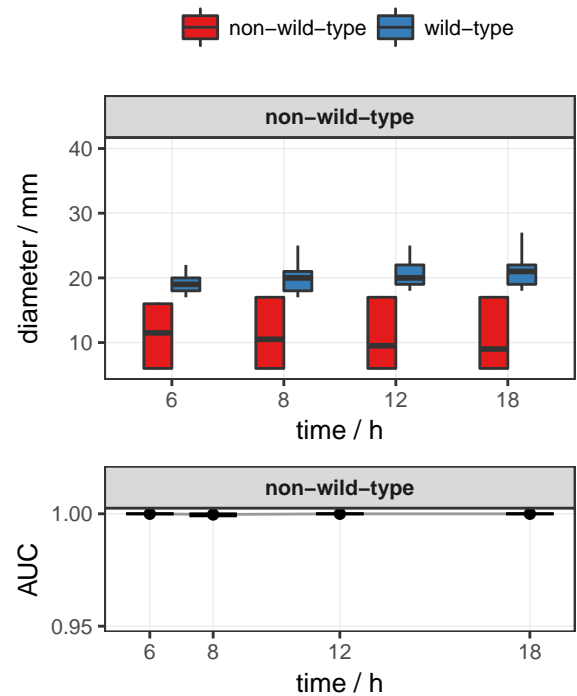


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

15.3 Gentamicin, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	213	100	100	100	100
non-wild-type	86	100	100	100	100

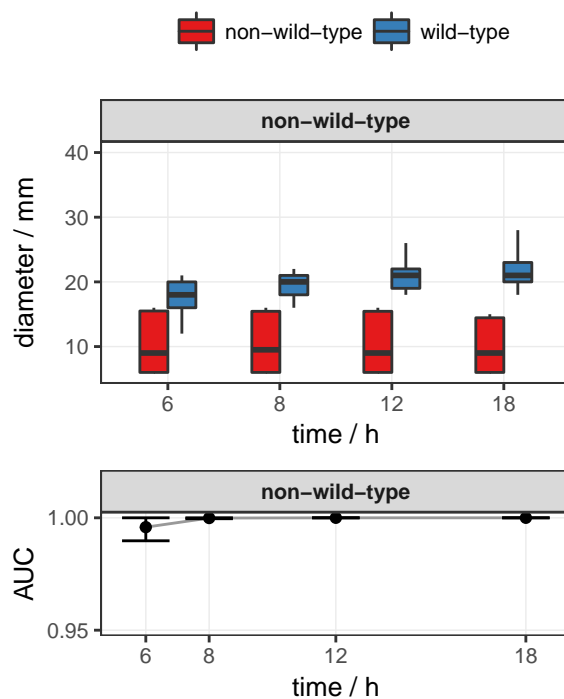


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

15.4 Gentamicin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	393	94	98	100	100
non-wild-type	12	92	100	100	100

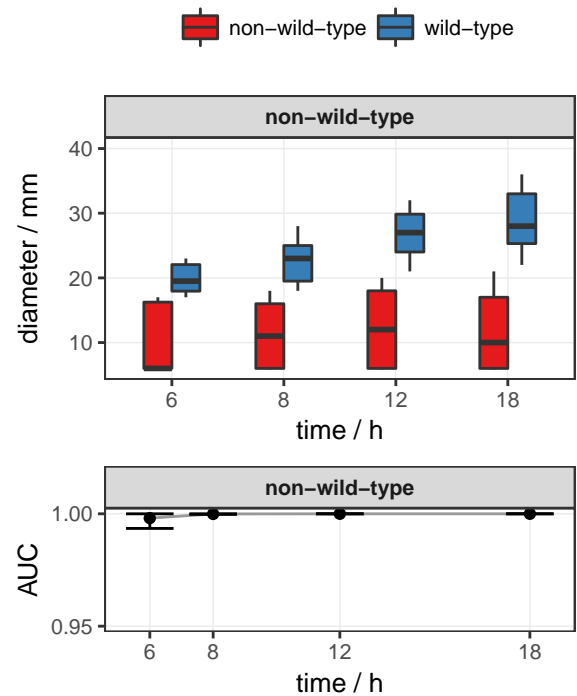


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

15.5 Gentamicin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	127	16	72	98	100
non-wild-type	148	18	55	98	100



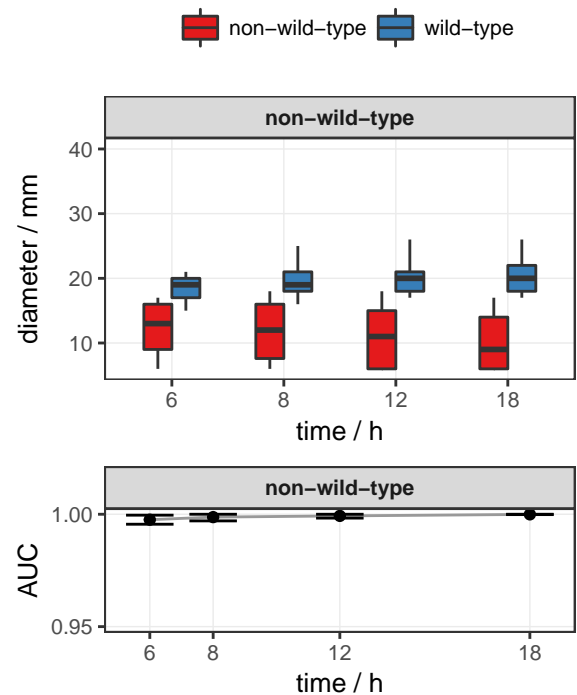
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

16 Tobramycin

16.1 Tobramycin, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	300	99	100	100	100
non-wild-type	173	98	100	100	100

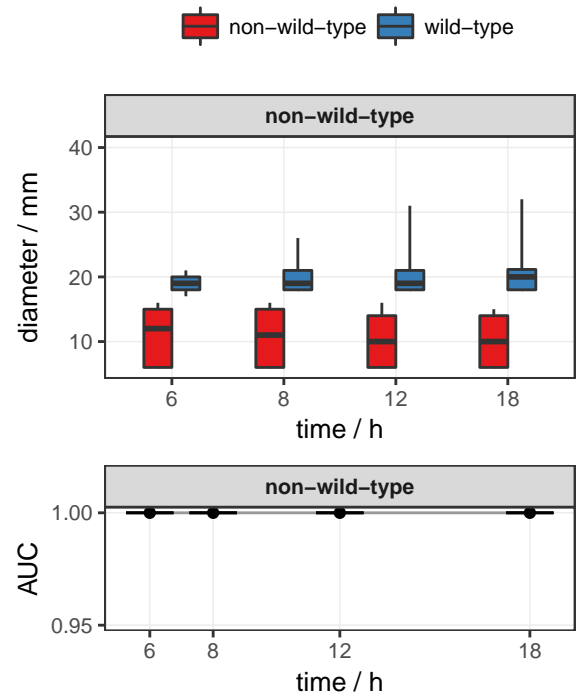


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

16.2 Tobramycin, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	258	98	100	100	100
non-wild-type	116	100	100	100	100

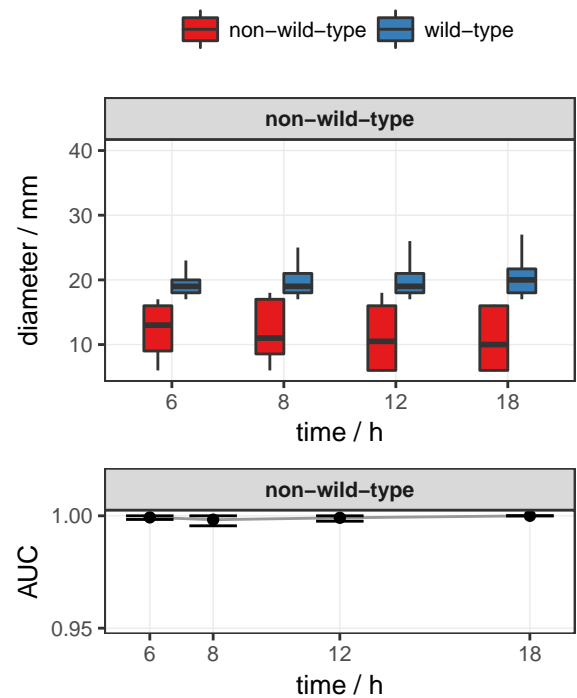


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

16.3 Tobramycin, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	207	100	100	100	100
non-wild-type	92	100	100	100	100

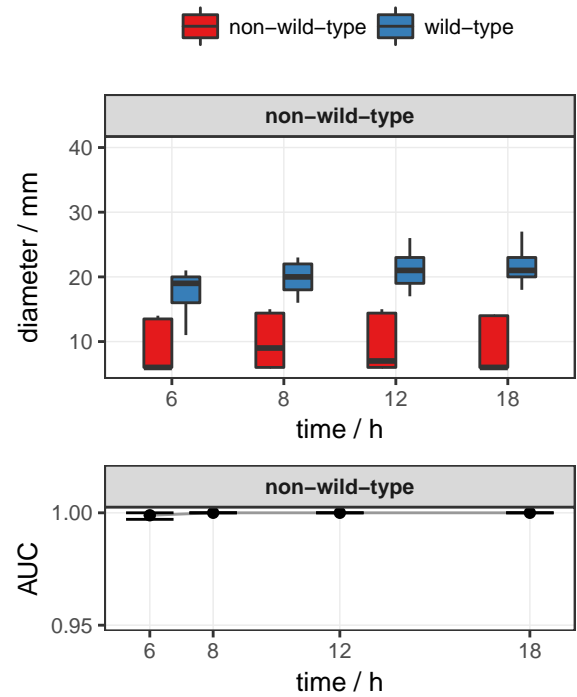


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

16.4 Tobramycin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	372	94	99	100	100
non-wild-type	33	94	100	100	100

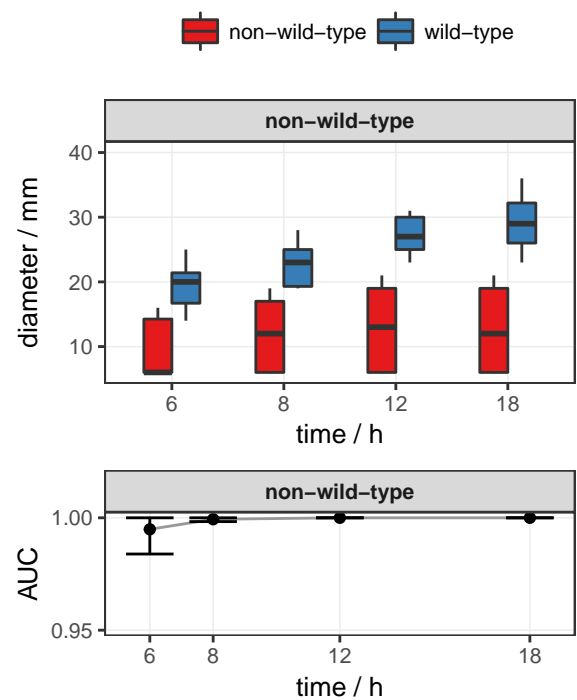


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

16.5 Tobramycin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	117	16	74	98	100
non-wild-type	158	23	56	97	100



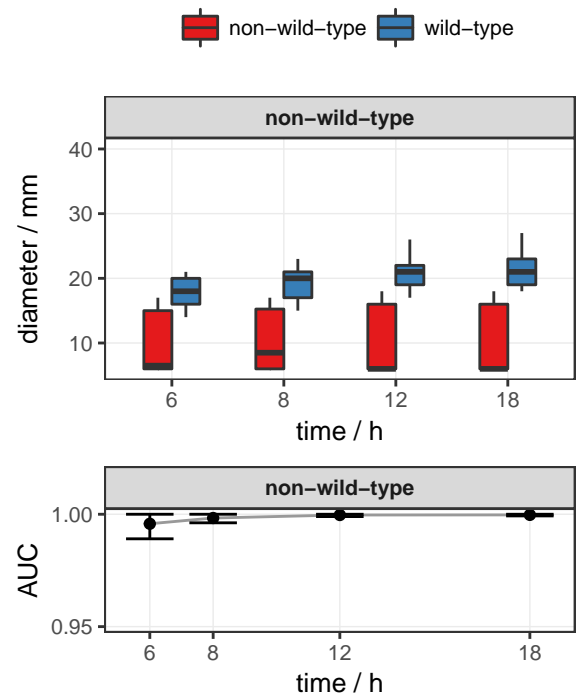
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

17 Kanamycin

17.1 Kanamycin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	344	94	99	100	100
non-wild-type	61	85	92	98	100

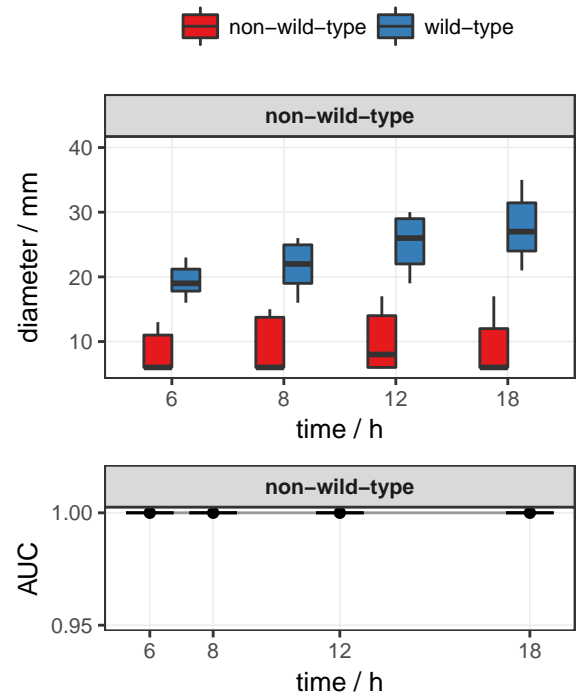


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

17.2 Kanamycin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	112	17	73	98	100
non-wild-type	163	50	65	98	100



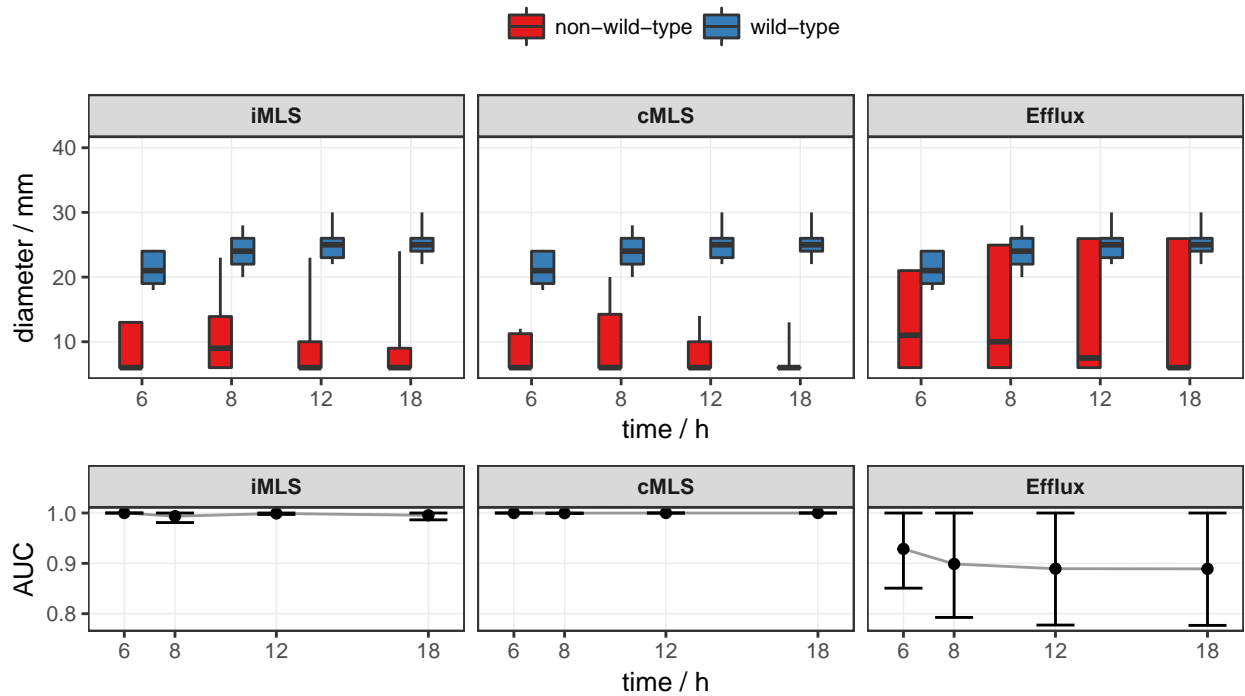
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

18 Erythromycin

18.1 Erythromycin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	75	73	100	100	100
iMLS	44	80	98	100	100
cMLS	26	92	100	100	100
Efflux	22	91	100	100	100

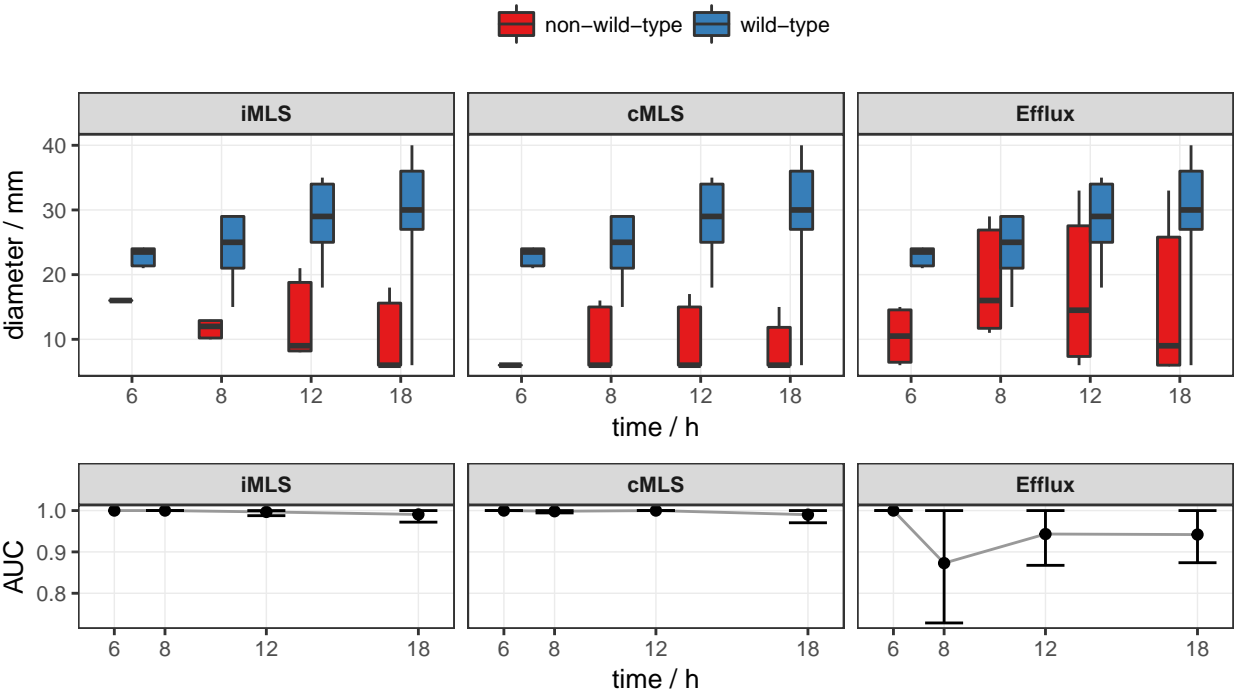


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

18.2 Erythromycin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	64	12	67	95	100
iMLS	5	20	60	100	100
cMLS	22	73	95	100	100
Efflux	28	7	54	100	100



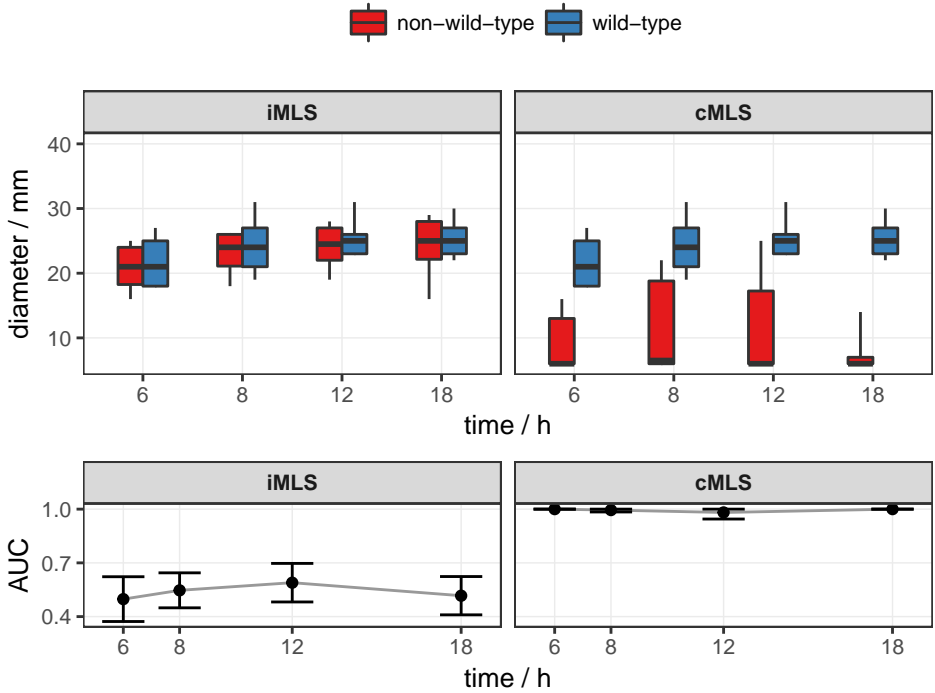
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

19 Clindamycin

19.1 Clindamycin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	97	74	100	100	100
iMLS	44	59	98	100	100
cMLS	26	81	85	100	100

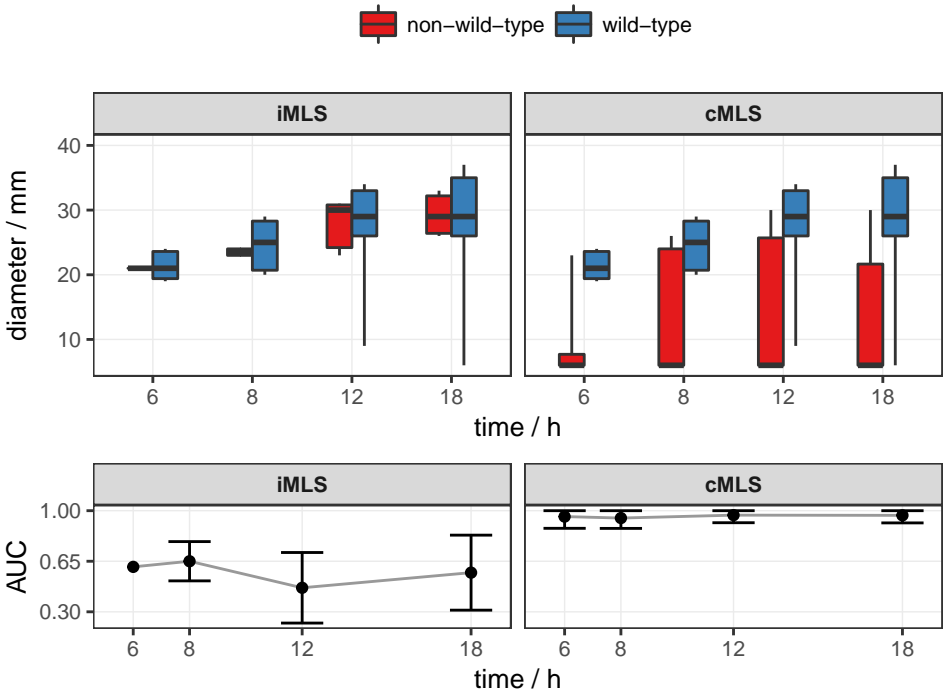


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

19.2 Clindamycin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	83	11	66	96	100
iMLS	5	20	80	100	100
cMLS	22	86	95	100	100



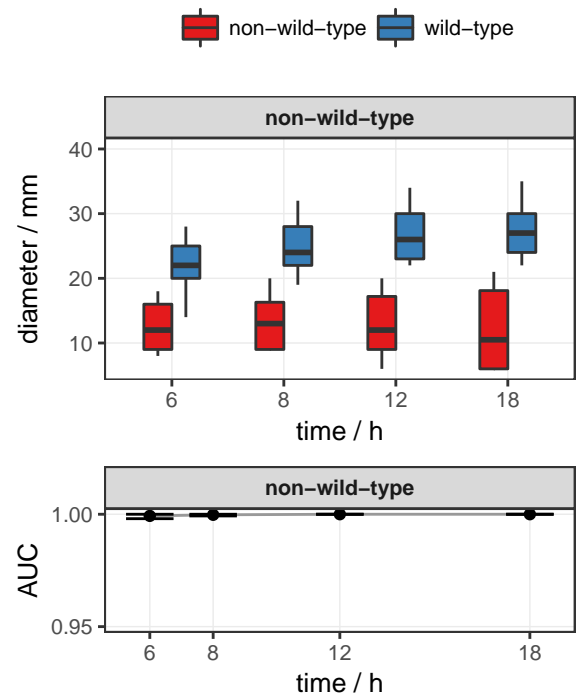
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

20 Tetracycline

20.1 Tetracycline, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	366	78	98	100	100
non-wild-type	40	78	98	98	100

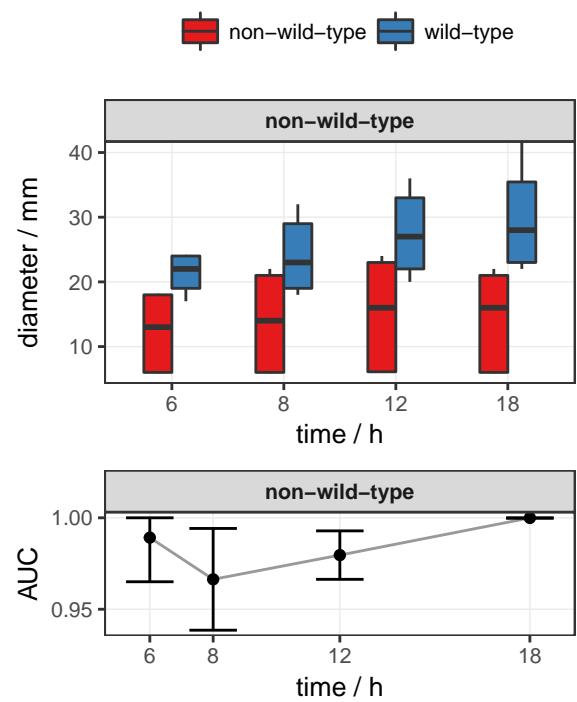


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

20.2 Tetracycline, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	232	9	58	97	100
non-wild-type	62	18	60	100	100



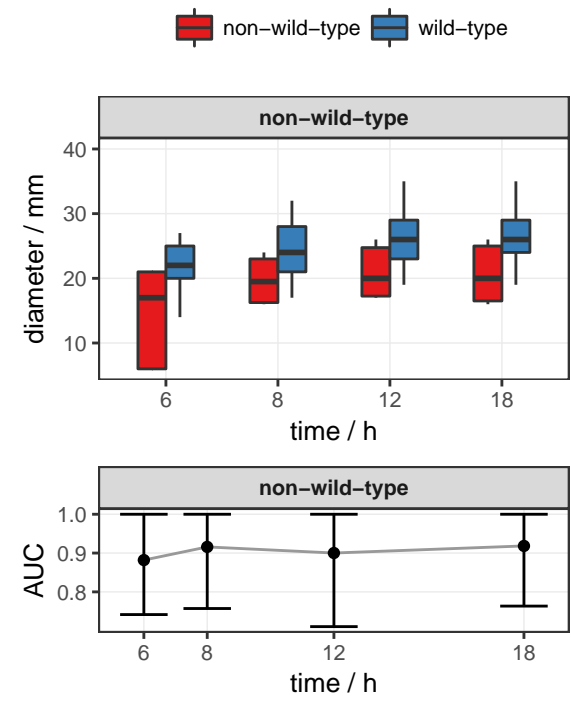
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

21 Minocycline

21.1 Minocycline, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	403	79	98	100	100
non-wild-type	6	83	100	100	100

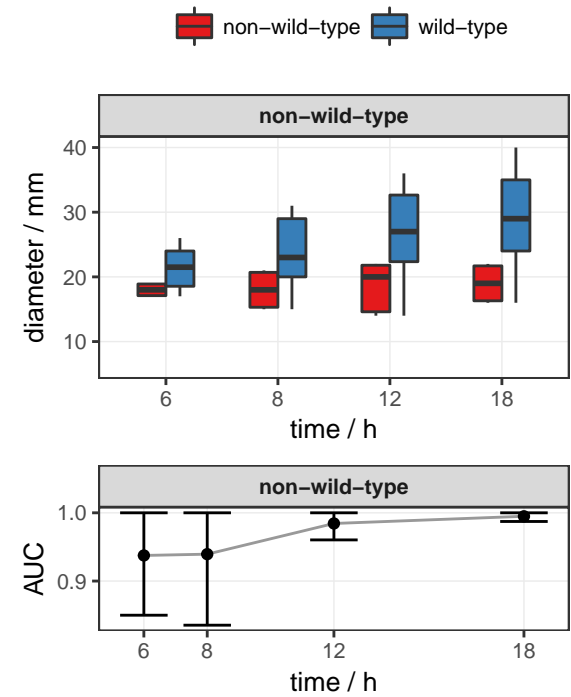


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

21.2 Minocycline, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	294	11	60	98	100
non-wild-type	3	100	100	100	100



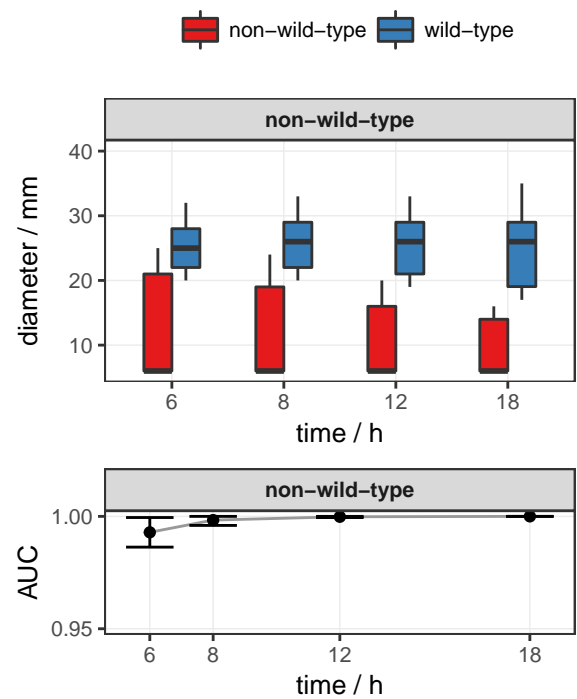
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

22 Sulfameth./Trimethoprim

22.1 Sulfameth./Trimethoprim, *E. coli*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	122	97	99	100	100
non-wild-type	160	100	100	100	100

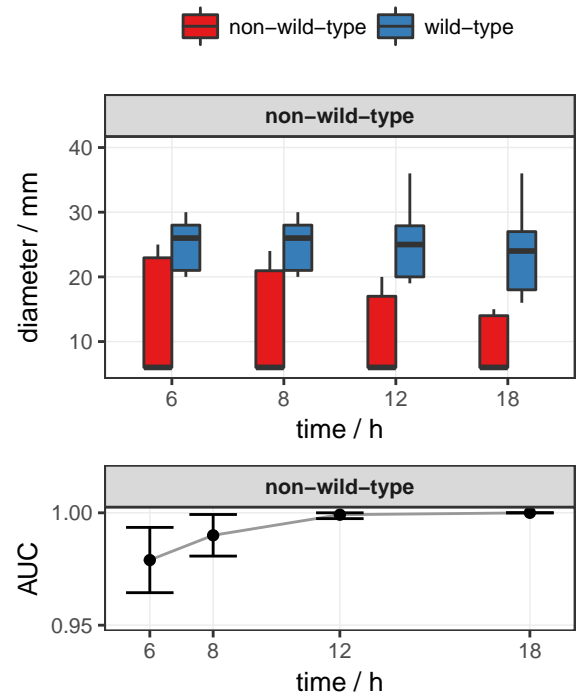


(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. **(Bottom)** The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

22.2 Sulfameth./Trimethoprim, *K. pneumoniae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	143	99	99	100	100
non-wild-type	82	100	100	100	100

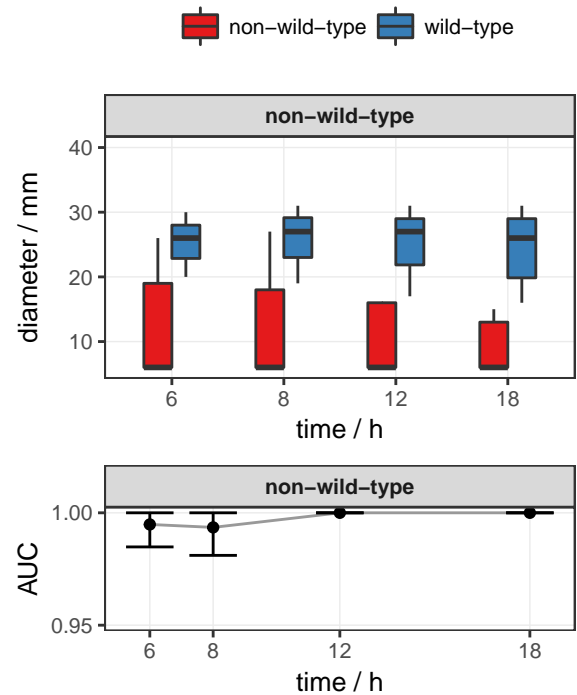


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

22.3 Sulfameth./Trimethoprim, *E. cloacae*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	118	100	100	100	100
non-wild-type	81	100	100	100	100

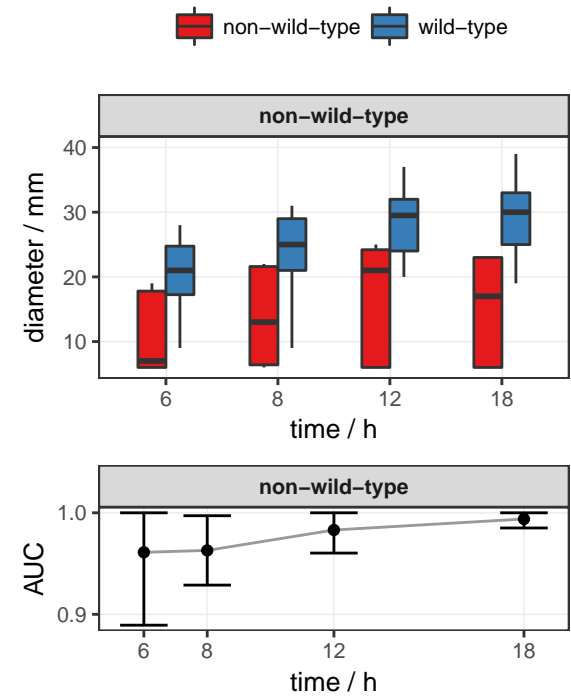


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

22.4 Sulfameth./Trimethoprim, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	164	77	97	100	100
non-wild-type	9	56	100	100	100

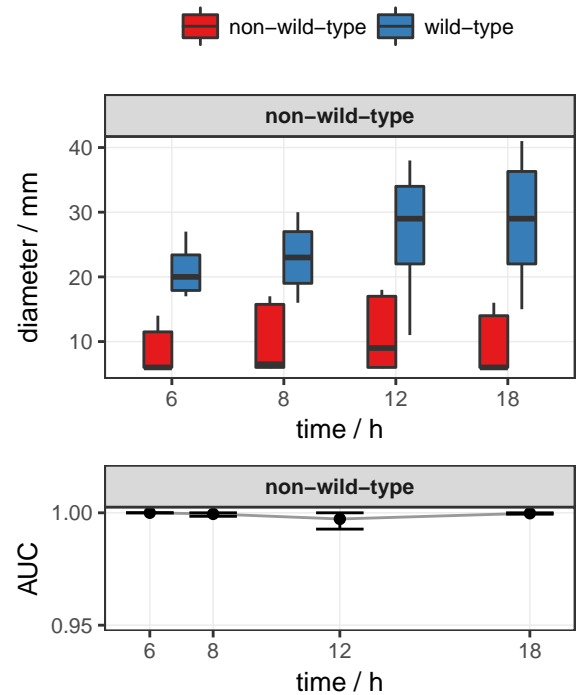


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

22.5 Sulfameth./Trimethoprim, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	155	12	69	97	100
non-wild-type	136	23	34	98	100



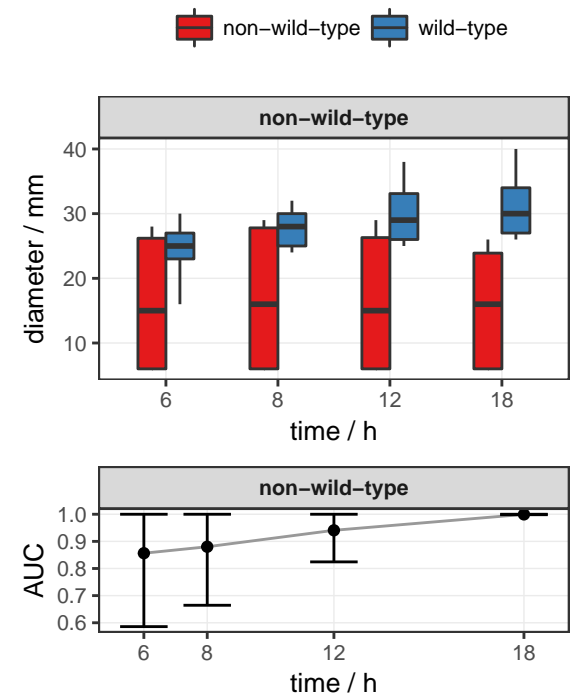
(Top) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (Bottom) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

23 Rifampicin

23.1 Rifampicin, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	400	94	98	100	100
non-wild-type	7	100	100	100	100

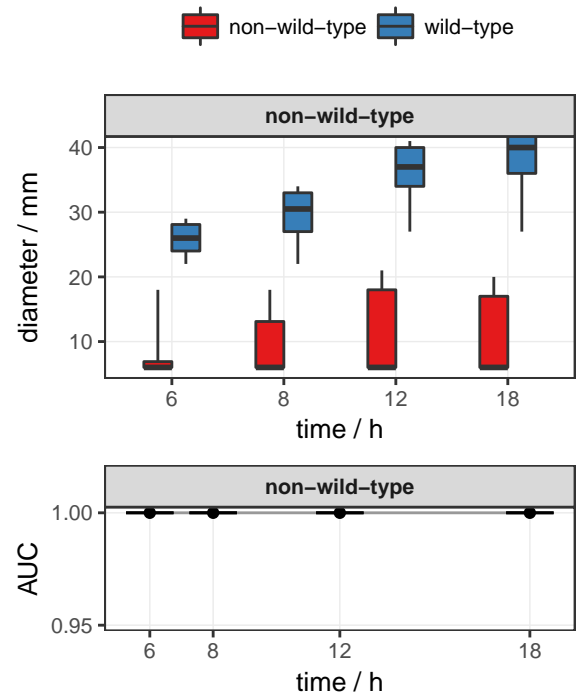


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

23.2 Rifampicin, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	253	15	69	98	100
non-wild-type	41	93	98	100	100



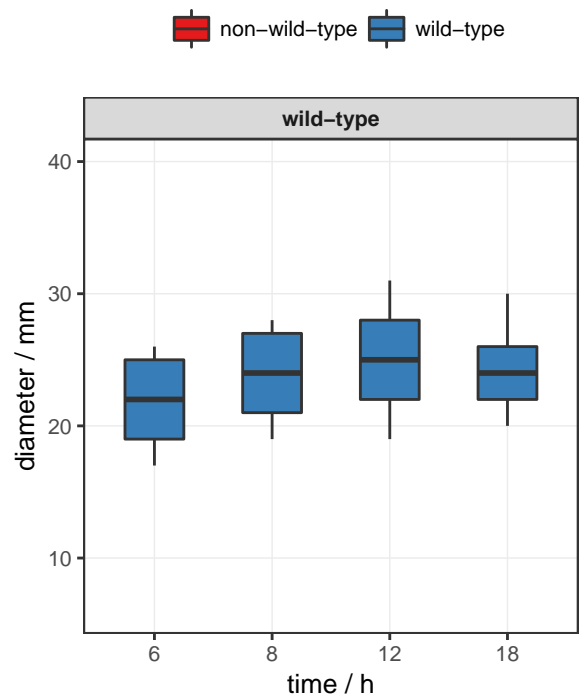
(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

24 Linezolid

24.1 Linezolid, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	407	87	99	100	100

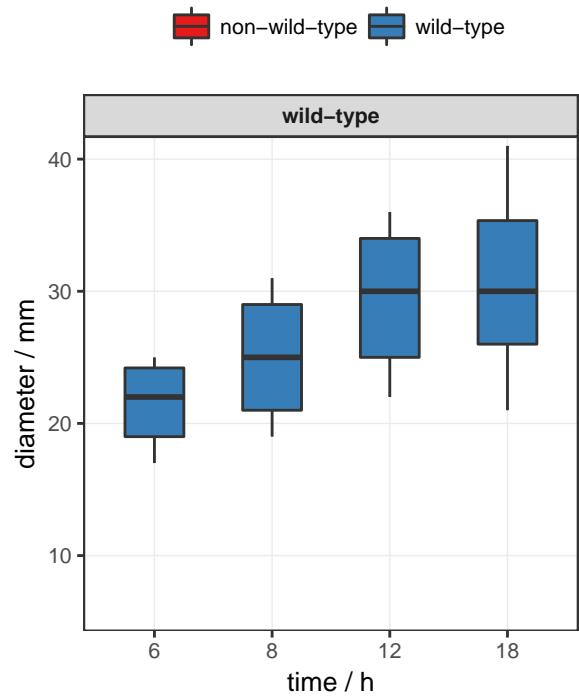


Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values.

24.2 Linezolid, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	294	13	63	98	100



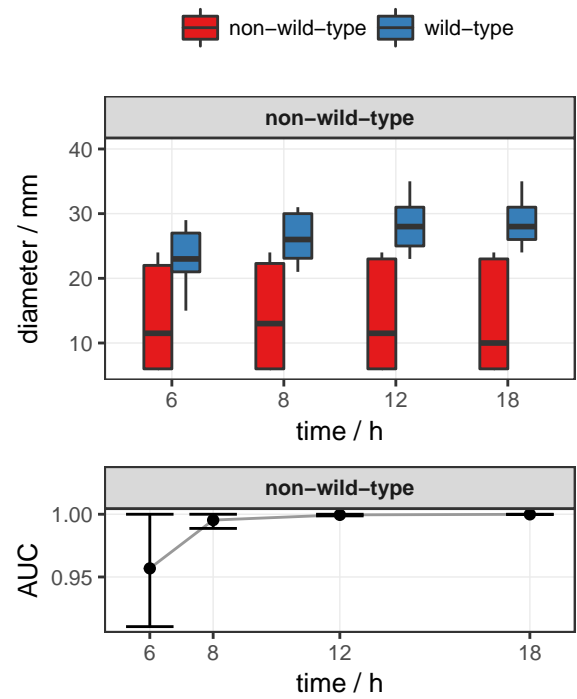
Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values.

25 Fusidic acid

25.1 Fusidic acid, *S. aureus*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	370	80	98	100	100
non-wild-type	37	76	95	97	100

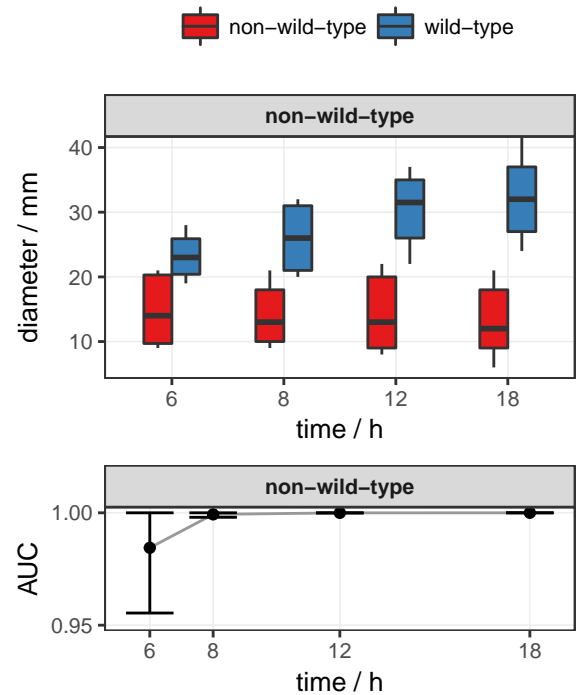


(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.

25.2 Fusidic acid, *S. epidermidis*

Sample sizes and readabilities for different phenotypes.

phenotype	n	readability / %			
		6 h	8 h	12 h	18 h
wild-type	144	10	59	97	100
non-wild-type	150	10	56	99	100



(**Top**) Boxes represent diameter ranges from the 5th to the 95th percentile, whiskers represent the full range of diameters, and bold lines indicate median diameter values. (**Bottom**) The area under the receiver operating characteristic curve (AUC) quantifies how well a phenotype is separated from the wild type. An AUC of 1 indicates perfect separation while an AUC of 0.5 corresponds to complete overlap of the two populations. Error bars display 95% confidence intervals.