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Characterisation of Southern African strains of the malarial parasite plasmodium falciparum

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1993
https://hdl.handle.net/10539/24748

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P57

Chloroquine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	26.5	100.00
0.02	20.0	75.47
0.04	20.0	75.47
0.08	15.5	58.49
0.16	4.0	15.09
0.32	0.0	0.00
0.64	0.0	0.00
1.28	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

In vitro response to quinine of field isolates of *Plasmodium falciparum* collected in KwaZulu in April 1989, in the 24-hour microtechnique

P7

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	84.5	97.69
0.08	86.5	100.00
0.16	62.0	71.68
0.32	20.5	23.70
0.64	1.0	1.16
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P9

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	169.5	100.00
0.08	162.0	95.58
0.16	162.0	95.58
0.32	161.5	95.28
0.64	109.5	64.60
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P10

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	64.0	100.00
0.08	58.5	91.41
0.16	39.0	60.94
0.32	23.5	36.72
0.64	0.0	0.00
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P12

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	32.0	90.14
0.08	23.5	66.20
0.16	35.5	100.00
0.32	4.0	11.27
0.64	0.0	0.00
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P13

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	92.5	78.06
0.08	102.5	86.50
0.16	118.5	100.00
0.32	49.0	41.35
0.64	26.5	22.36
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P14

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	26.0	100.00
0.08	9.0	34.62
0.16	24.5	94.23
0.32	19.0	73.08
0.64	9.0	34.62
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P15

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	13.5	71.05
0.08	15.0	78.95
0.16	19.0	100.00
0.32	14.0	73.68
0.64	11.5	60.53
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P16

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	87.5	100.00
0.08	82.5	94.29
0.16	80.0	91.43
0.32	60.5	69.14
0.64	23.5	26.86
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P18

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	116.5	86.94
0.08	110.0	82.09
0.16	134.0	100.00
0.32	126.5	94.40
0.64	19.5	14.55
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P22

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	24.0	94.12
0.08	25.5	100.00
0.16	25.0	98.04
0.32	20.5	80.39
0.64	11.5	45.10
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P32

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	55.0	100.00
0.08	41.5	75.45
0.16	45.0	81.82
0.32	37.5	68.18
0.64	40.5	73.64
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

P33

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	46.5	100.00
0.08	34.0	73.12
0.16	19.0	40.86
0.32	27.5	59.14
0.64	4.0	8.60
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P45

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	32.5	74.71
0.08	30.5	70.11
0.16	29.0	66.67
0.32	43.5	100.00
0.64	34.0	78.16
1.28	15.5	35.63
2.56	0.0	0.00
5.12	0.0	0.00

P46

Quinine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	18.0	87.80
0.08	20.5	100.00
0.16	20.5	100.00
0.32	13.0	63.41
0.64	1.5	7.32
1.28	0.0	0.00
2.56	0.0	0.00
5.12	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

In vitro response to sulphadoxine/pyrimethamine of field isolates of *Plasmodium falciparum* collected in KwaZulu in April 1989, in the 24-hour microtechnique

P7

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	32.0	100.00
0.2	14.0	43.75
0.6	0.0	0.00
2.0	0.0	0.00
6.0	0.0	0.00
20.0	0.0	0.00
60.0	0.0	0.00
200.0	0.0	0.00

P9

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	79.0	91.33
0.2	65.0	75.14
0.6	70.0	80.92
2.0	82.0	94.80
6.0	86.5	100.00
20.0	57.0	65.90
60.0	25.5	29.48
200.0	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P10

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	17.0	100.00
0.2	16.5	97.06
0.6	14.5	85.29
2.0	12.5	73.53
6.0	4.5	26.47
20.0	0.5	2.94
60.0	0.0	0.00
200.0	0.0	0.00

P12

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	20.5	100.00
0.2	16.0	78.05
0.6	19.5	95.12
2.0	18.5	90.24
6.0	16.0	78.05
20.0	0.5	2.44
60.0	0.0	0.00
200.0	0.0	0.00

P13

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	38.0	63.33
0.2	60.0	100.00
0.6	38.5	64.17
2.0	35.0	58.33
6.0	35.5	59.17
20.0	27.0	45.00
60.0	0.0	0.00
200.0	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P15

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	14.0	77.78
0.2	18.0	100.00
0.6	10.0	55.56
2.0	7.0	38.89
6.0	4.5	25.00
20.0	3.0	16.67
60.0	0.5	2.78
200.0	0.0	0.00

P16

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	39.0	66.67
0.2	48.5	82.91
0.6	37.5	64.10
2.0	58.5	100.00
6.0	37.0	63.25
20.0	49.0	83.76
60.0	29.0	49.57
200.0	0.0	0.00

P18

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	60.0	96.77
0.2	62.0	100.00
0.6	54.5	87.90
2.0	53.0	85.48
6.0	40.0	64.52
20.0	5.0	8.06
60.0	0.0	0.00
200.0	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

P32

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	17.5	100.00
0.2	13.0	74.29
0.6	10.5	60.00
2.0	9.5	54.29
6.0	7.0	40.00
20.0	6.5	37.14
60.0	0.0	0.00
200.0	0.0	0.00

P33

Sulphadoxine/ pyrimethamine concentration (μM)	Schizonts per 200 parasites[a]	Percentage control growth[b]
Control	15.5	100.00
0.2	6.5	41.94
0.6	9.0	58.06
2.0	8.5	54.84
6.0	6.5	41.94
20.0	9.0	58.06
60.0	6.5	41.94
200.0	0.0	0.00

[a] Mean of 2 counts
[b] For the calculation of the IC_{50} value, where the mean schizont count in the control wells was less than that in some of the test wells, the highest count was taken as 100% control growth

In vitro response to chloroquine of field isolates of *Plasmodium falciparum* collected in KwaZulu in March 1990, in the radioisotope uptake assay

N35

Chloroquine concentration (μM)	Mean counts per minute	Percentage control growth
Control	10042	100.00
0.01	9372	93.33
0.02	3314	33.00
0.04	0	0.00
0.08	0	0.00
0.16	0	0.00
0.32	0	0.00
0.64	0	0.00

N42

Chloroquine concentration (μM)	Mean counts per minute	Percentage control growth
Control	2035	100.00
0.01	970	47.67
0.02	951	46.73
0.04	12	0.59
0.08	0	0.00
0.16	0	0.00
0.32	0	0.00
0.64	0	0.00

N69

Chloroquine concentration (μM)	Mean counts per minute	Percentage control growth
Control	2688	100.00
0.01	2274	84.6
0.02	713	26.53
0.04	16	0.60
0.08	0	0.00
0.16	0	0.00
0.32	0	0.00
0.64	0	0.00

N81

Chloroquine concentration (μM)	Mean counts per minute	Percentage control growth
Control	2636	100.00
0.01	2292	86.95
0.02	1544	58.57
0.04	230	8.73
0.08	68	2.58
0.16	28	1.06
0.32	12	0.46
0.64	7	0.27

In vitro response to quinine of field isolates of *Plasmodium falciparum* collected in KwaZulu in March 1990, in the radioisotope uptake assay

N35

Quinine concentration (μM)	Mean counts per minute	Percentage control growth
Control	8057	100.00
0.04	2418	30.01
0.08	1302	16.16
0.16	237	2.94
0.32	0	0.00
0.64	0	0.00
1.28	0	0.00
2.56	0	0.00

N42

Quinine concentration (μM)	Mean counts per minute	Percentage control growth
Control	3293	100.00
0.04	2189	66.47
0.08	1421	43.15
0.16	477	14.49
0.32	35	1.06
0.64	0	0.00
1.28	0	0.00
2.56	0	0.00

N69

Quinine concentration (μM)	Mean counts per minute	Percentage control growth
Control	2481	100.00
0.04	1772	71.42
0.08	974	39.26
0.16	504	20.31
0.32	135	5.44
0.64	10	0.40
1.28	0	0.00
2.56	0	0.00

N81

Quinine concentration (μM)	Mean counts per minute	Percentage control growth
Control	2429	100.00
0.04	1902	78.30
0.08	1261	51.91
0.16	726	29.89
0.32	142	5.85
0.64	74	3.05
1.28	47	1.93
2.56	3	0.12

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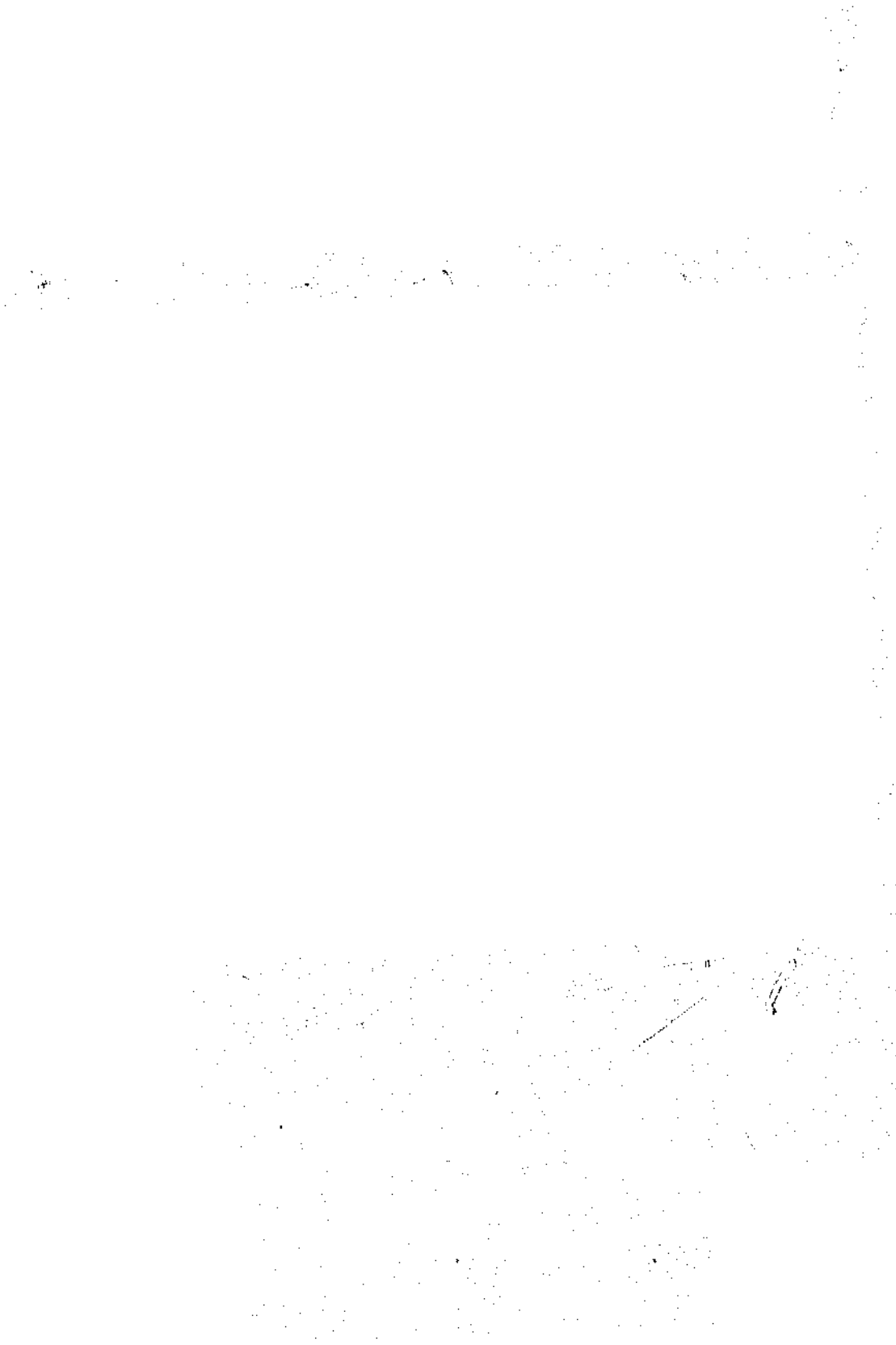

Author: Freese Janet Anne.
Name of thesis: Characterisation of Southern African strains of the malarial parasite Plasmodium falciparum.

PUBLISHER:
University of the Witwatersrand, Johannesburg
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