



Supplemental Figure 1: Flow cytometry gating strategy. After gating on single lymphocytes CD4 and CD8 T-cells were divided into naïve, central memory (CM), effector memory (EM) and TEMRA populations based on CCR7 and CD45RA expression (naïve CCR7+CD45RA+; CM CCR7+CD45RA-, EM CCR7-CD45RA- and TEMRA CCR7-CD45RA+). The CD4 naïve (CCR7+CD45RA+) population was further split into recent thymic emigrants (RTEs) and non-RTEs based on expression of CD31 (RTE CD4+CCR7+CD45RA+CD31+). CD4 T regulatory cells (Tregs) were divided into naïve and memory subpopulations based on CD45RA and FOXP3 expression (naïve Tregs CD4+CD45RA+FOXP3+; memory Tregs CD4+CD45RA-FOXP3++).



Supplemental Figure 2: Example of CT Chest Imaging – showing the thymus in the anterior mediastinum, with the superimposed region of interest volume tool (purple).

Variable	Group	Statistic	Screening	Baseline	M1	M3	M6
Sample Numbers	Placebo	Total Cell count n	14	14	10	14	14
	Palifermin		14	14	8	14	14
	Placebo	% count n	14	13	14	14	14
	Palifermin		14	13	14	14	14
	Placebo	Subset count n	14	13	10	14	14
	Palifermin		14	13	8	14	14
Total CD4 Count (x10 ⁹ /L)	Placebo	Mean (SD)	0.8907 (0.2774)	0.9786 (0.3633)	0.0500 (0.0492)	0.0757 (0.0390)	0.1493 (0.0664)
		Median	0.855	0.855	0.03	0.08	0.145
		Min, Max	0.46, 1.32	0.68, 1.97	0, 0.14	0.03, 0.15	0.06, 0.31
	Palifermin	Mean (SD)	0.8043 (0.2981)	0.8643 (0.3559)	0.0825 (0.1853)	0.0929 (0.0932)	0.1064 (0.0551)
		Median	0.79	0.895	0.015	0.065	0.085
		Min, Max	0.38, 1.38	0.35, 1.74	0, 0.54	0.03, 0.35	0.04, 0.25
% of CD4 that are naïve (CCR7+CD45RA+)	Placebo	Mean (SD)	59.61 (14.28)	60.30 (14.60)	8.69 (9.89)	17.88 (15.93)	48.36 (22.24)
		Median	61.55	61.6	4.47	12.975	55.35
		Min, Max	37.4, 85.7	26, 80.9	0.81, 31.6	0.3, 53.5	2.29, 78.6
	Palifermin	Mean (SD)	47.52 (15.36)	48.61 (17.19)	3.21 (3.41)	6.19 (9.78)	23.42 (18.77)
		Median	50.9	45.9	2	2.405	22.45
		Min, Max	23.5, 72.4	23.8, 78.6	0, 11.2	0.086, 37.1	0.21, 51.8
Naïve CD4 (CCR7+CD45RA+) count (x10 ⁷ /L)	Placebo	Mean (SD)	53.869 (22.245)	59.777 (26.108)	0.341 (0.252)	1.326 (1.293)	7.733 (5.473)
		Median	52.561	56.63	0.3092	1.0904	6.929
		Min, Max	18.538, 90.52	19.24, 121.155	0, 0.67	0.009, 4.28	0.1603, 19.933
	Palifermin	Mean (SD)	39.726 (21.395)	44.333 (23.646)	0.036 (0.038)	0.387 (0.677)	2.229 (1.997)
		Median	34.9265	45.126	0.02485	0.15195	1.357
		Min, Max	10.906, 77.556	9.996, 79.866	0, 0.1114	0.0224, 2.597	0.0189, 6.108
% of CD4 that are RTEs (CD31+CCR7+CD45RA+)	Placebo	Mean (SD)	29.86 (13.29)	30.31 (11.57)	7.93 (8.71)	13.29 (11.75)	33.95 (18.68)
		Median	27.9	34.5	4.105	9.88	32.75
		Min, Max	11, 59.6	10.3, 48.4	0.73, 28.9	0.17, 38.9	0.85, 63
	Palifermin	Mean (SD)	21.32 (9.45)	26.44 (12.83)	2.94 (2.77)	4.83 (7.88)	16.05 (13.21)
		Median	19.85	24.8	2.26	1.89	14.7
		Min, Max	9.03, 40.3	10.2, 48.9	0.034, 11	0.079, 29.8	0.54, 37.1
RTEs (CD31+CCR7+CD45RA+) count (x10 ⁷ /L)	Placebo	Mean (SD)	13.005 (7.696)	15.292 (10.371)	3.316 (9.004)	1.336 (2.181)	5.029 (7.011)
		Median	12.348	12.74	0.398	0.8859	3.688
		Min, Max	2.66, 27.951	3.09, 41.34	0, 28.9	0, 8.507	0.0085, 28.567
	Palifermin	Mean (SD)	8.896 (4.239)	13.229 (8.722)	0.115 (0.146)	0.238 (0.321)	1.317 (1.282)
		Median	8.7775	13.184	0.05145	0.08847	0.9
		Min, Max	2.7993, 16.523	2.144, 33.25	0, 0.3861	0.006, 1.023	0.1242, 4.83
% of CD4 that are CM (CCR7+CD45RA-)	Placebo	Mean (SD)	26.2 (11.95)	25.1 (11.25)	14.9 (12.31)	17.3 (7.15)	18.5 (8.96)
		Median	25	23.9	10.8	16.7	17.35
		Min, Max	2.38, 46.4	0.81, 46.6	1.11, 48.3	4.27, 33.4	1.64, 36.3
	Palifermin	Mean (SD)	30.2 (7.16)	28.8 (7.27)	21.4 (13.79)	16.6 (10.09)	21.7 (9.21)

		Median Min, Max	29.1 20, 45.5	29.3 14.5, 42.7	18.1 2.06, 56.6	17.65 1.81, 36.1	24.5 5.32, 36
CM CD4 (CCR7+CD45RA-) count (x10⁷/L)	Placebo	Mean (SD) Median Min, Max	22.683 (9.464) 22.365 1.2614, 40.392	24.458 (11.432) 24.182 0.567, 42.946	0.616 (0.674) 0.377 0, 1.932	1.335 (0.799) 1.344 0.1281, 3.006	2.694 (1.526) 2.5045 0.0984, 6.897
	Palifermin	Mean (SD) Median Min, Max	24.617 (11.528) 23.61 9.156, 49.595	25.849 (14.258) 24.411 8.19, 52.548	0.430 (0.332) 0.403 0, 1.1124	1.123 (0.617) 1.398 0.0932, 1.88	2.094 (0.959) 2.1235 0.3584, 3.904
% of CD4 that are EM (CCR7-CD45RA-)	Placebo	Mean (SD) Median Min, Max	12.1 (6.65) 11.55 1.67, 26.2	12.1 (7.25) 9.66 0.84, 26.2	64.3 (21.63) 70.75 4.27, 85.3	56.4 (21.18) 60.3 12.6, 83.4	27.5 (21.33) 20.8 5.72, 71.1
	Palifermin	Mean (SD) Median Min, Max	19.5 (9.77) 16.05 6.49, 38.9	19.2 (11.24) 19.1 5.66, 39	66.4 (14.47) 65.55 39.8, 96.4	67.9 (17.04) 74.35 29.7, 84.6	45.8 (19.97) 45.45 17.1, 75.2
EM CD4 (CCR7-CD45RA-) count (x10⁷/L)	Placebo	Mean (SD) Median Min, Max	10.89 (7.30) 9.9209 0.8851, 28.82	12.33 (9.01) 10.1926 0.588, 30.732	3.66 (4.40) 1.452 0, 11.718	4.39 (2.88) 3.616 0.378, 9.698	3.89 (3.00) 3.184 0.3432, 10.849
	Palifermin	Mean (SD) Median Min, Max	14.40 (5.85) 14.042 3.4272, 24.035	15.22 (9.29) 13.65 3.8976, 39.324	7.60 (17.99) 1.0295 0, 52.056	6.08 (5.86) 4.206 2.079, 21.97	4.97 (4.35) 3.998 1.791, 18.8
% of CD4 that are TEMRA (CCR7-CD45RA+)	Placebo	Mean (SD) Median Min, Max	2.07 (2.61) 1.425 0.095, 10.2	2.55 (4.58) 1.28 0.2, 17.5	12.13 (15.41) 8.435 2.79, 63	8.40 (10.98) 4.805 0, 43.6	5.64 (10.76) 2.295 1.1, 42.7
	Palifermin	Mean (SD) Median Min, Max	2.76 (3.30) 1.165 0.54, 10.2	3.39 (4.21) 1.41 0.66, 12.4	9.00 (8.32) 6.38 1.2, 26.7	9.30 (12.85) 5.21 1.09, 51	9.16 (16.47) 3.425 0.68, 64.6
TEMRA CD4 (CCR7+CD45RA+) count (x10⁷/L)	Placebo	Mean (SD) Median Min, Max	1.638 (1.641) 1.2433 0.07505, 5.406	2.203 (3.206) 1.5192 0.1725, 12.25	0.388 (0.355) 0.3325 0, 1.26	0.522 (0.425) 0.435 0, 1.308	0.611 (0.633) 0.46875 0.077, 2.562
	Palifermin	Mean (SD) Median Min, Max	1.704 (1.494) 1.06615 0.252, 5.304	2.074 (1.922) 1.1875 0.6204, 7.192	0.182 (0.277) 0.0819 0, 0.8316	1.699 (4.684) 0.29 0.0763, 17.85	1.352 (3.087) 0.28695 0.0544, 11.628

Supplemental Table 1: Characterisation of the CD4 population into naïve (CD45RA+CCR7+), central memory (CD45RA-CCR7+), effector memory (CD45RA-CCR7-) and TEMRA (CD45RA+CCR7-) subsets. Data show either cell subset count or percentage of the total CD4+ T cell population. Data show: mean (SD), median and minimum and maximum values.

Variable	Estimate	95% confidence interval	p-value
Intercept	5.294	0.948, 9.64	0.027
Treatment: Placebo vs. Palifermin	-5.132	-8.3, -1.964	0.005
Age (years)	-0.151	-0.353, 0.051	0.158
Baseline Naïve CD4+ T-cell count	0.051	-0.016, 0.118	0.154
Total Placebo/Palifermin dose	0.011	-0.033, 0.055	0.621

Supplemental Table 2: Results of multivariate linear regression. Where age, baseline naïve CD4 count and total Palifermin dose are median-centred, the intercept represents the estimated naïve CD4 T-cell count at 6 months for a 31 year old patient receiving Placebo, with a baseline CD4 T-cell count of 4 and a total Palifermin dose of 155mg.

Variable	Group	Statistic	Screening	Baseline	M3	M6
TREC _s /mL	Placebo	n	14	14	14	14
		Mean (SD)	14498.2 (10500.8)	11650.6 (10804.1)	846.1 (1980.6)	3395.5 (3038.8)
		Median	12145.767175	8508.5298895	162.92944065	2900.9870755
	Min, Max	2182.447437, 44661.9694	2012.348712, 45769.11665	49.93802302, 7530.082989	56.82513607, 10497.06299	
	Palifermin	n	14	13	14	14
		Mean (SD)	11567.4 (8593.3)	6735.9 (4055.6)	64.6 (27.9)	1100.1 (1721.6)
Median		9802.973622	5855.968675	54.636672535	130.4216061	
Min, Max	1720.08455, 30307.69819	2235.920272, 15441.01851	42.2178011, 150.4546818	25.34423421, 5179.969108		

Supplemental Table 3: T cell receptor circles/mL of blood. Data show: n, mean (SD), median, minimum and maximum values (range).

Variable	Group	Statistic	Screening	M6
Sample Numbers	Placebo	n	13	14
	Palifermin	n	14	14
CD4 Clonality	Placebo	Mean (SD) Median Min, Max	0.0375 (0.00781) 0.03585857 0.03017301, 0.05763811	0.0669 (0.03475) 0.054343265 0.03364677, 0.14011244
	Palifermin	Mean (SD) Median Min, Max	0.0638 (0.07221) 0.04150275 0.03352844, 0.31023574	0.1022 (0.08390) 0.079028835 0.03899742, 0.3464845
CD4 Shannon's entropy	Placebo	Mean (SD) Median Min, Max	15.2 (0.18) 15.139041 14.77885, 15.378655	13.3 (1.50) 13.712763 10.31376, 15.0130625
	Palifermin	Mean (SD) Median Min, Max	14.6 (1.47) 15.07127225 9.58258, 15.196354	12.7 (2.09) 13.555009 8.372956, 14.92308
Number of unique clones/ ug DNA	Placebo	Mean (SD) Median Min, Max	139536 (13669) 141958 117395, 168923	84017 (36989) 93483.5 9743, 126215
	Palifermin	Mean (SD) Median Min, Max	123118 (27336) 129185 38020, 150158	75111 (29936) 84755 20999, 124700
Total frequency of top (%) 20 clones	Placebo	Mean (SD) Median Min, Max	1.37 (1.23) 0.90441766 0.51445915, 4.775824	5.00 (5.44) 2.527990275 0.68910601, 19.11048208
	Palifermin	Mean (SD) Median Min, Max	4.86 (9.76) 1.64020026 0.66854091, 38.0358239	9.78 (10.98) 5.602800835 1.39888024, 39.84258683

Supplemental Table 4: CD4 clonality data. Data show: n, mean (SD), median, minimum and maximum values (range).

Variable	Group	Statistic	Screening	M6
Sample Numbers	Placebo	n	13	14
	Palifermin	n	14	14
CD8 Clonality	Placebo	Mean (SD) Median Min, Max	0.136 (0.0721) 0.10035078 0.04902521, 0.25257745	0.172 (0.1273) 0.10737668 0.05752725, 0.40934533
	Palifermin	Mean (SD) Median Min, Max	0.138 (0.0768) 0.10242532 0.06491759, 0.27877614	0.264 (0.1526) 0.2728574 0.07362837, 0.5184298
CD8 Shannon's entropy	Placebo	Mean (SD) Median Min, Max	13.11 (1.29) 13.44983 11.284007, 14.839041	10.90 (2.95) 11.64596375 3.4748309, 13.79748
	Palifermin	Mean (SD) Median Min, Max	13.02 (1.40) 13.662123 10.533361, 14.5808325	9.48 (2.93) 9.8403895 5.365707, 13.506013
Number of unique clones/ ug DNA	Placebo	Mean (SD) Median Min, Max	94054 (25106) 94902.5 56125, 127720	46209 (26569) 39843.02607 9580, 95197.5
	Palifermin	Mean (SD) Median Min, Max	89672 (21385) 88376.25 52742.5, 123575	30890 (25455) 24710 5650, 76360
Total frequency of top (%) 20 clones	Placebo	Mean (SD) Median Min, Max	13.8 (9.15) 8.92213444 3.37677901, 29.1517279	24.6 (23.32) 11.764251335 3.81559545, 81.99052133
	Palifermin	Mean (SD) Median Min, Max	14.3 (10.19) 9.67576011 4.81115464, 32.95189837	35.6 (23.70) 31.433465595 6.91309173, 75.30927941

Supplemental Table 5: CD8 clonality data. Data show: n, mean (SD), median, minimum and maximum values (range).

Variable	Group	Statistic	Screening	Baseline	M1	M3	M6
Sample Numbers	Placebo	Total Cell count n	14	14	10	14	14
	Palifermin		14	14	8	14	14
	Placebo	% count n	14	13	14	14	14
	Palifermin		14	13	14	14	14
	Placebo	Subset count n	14	13	10	14	14
	Palifermin		14	13	8	14	14
Total CD8 Count (x10 ⁹ /L)	Placebo	Mean (SD)	0.4229 (0.180)	0.4979 (0.262)	0.2460 (0.337)	0.0957 (0.128)	0.1321 (0.131)
		Median	0.385	0.42	0.045	0.06	0.095
		Min, Max	0.19, 0.77	0.22, 1.06	0, 1	0, 0.47	0.01, 0.53
	Palifermin	Mean (SD)	0.4443 (0.202)	0.5279 (0.326)	0.1500 (0.295)	0.1864 (0.328)	0.1743 (0.189)
		Median	0.4	0.475	0.04	0.07	0.08
		Min, Max	0.14, 0.93	0.16, 1.33	0, 0.87	0.01, 1.26	0.02, 0.68
Percentage of CD8 that are naïve (CCR7+CD45RA+)	Placebo	Mean (SD)	50.72 (14.45)	46.92 (11.78)	7.47 (17.42)	17.86 (17.97)	37.19 (22.19)
		Median	50.3	48.4	1.57	12.35	36.25
		Min, Max	11.8, 68	24.2, 64.1	0, 67.1	0.34, 66.5	6.77, 64.9
	Palifermin	Mean (SD)	44.69 (17.64)	40.67 (18.16)	1.87 (2.63)	13.30 (19.02)	23.70 (25.43)
		Median	50.35	44.2	0.835	2.29	12.2
		Min, Max	13.7, 65.8	9.87, 65.6	0, 9.83	0.069, 60.8	0.25, 67.8
Naïve CD8 (CCR7+CD45RA+) count (x10 ⁷ /L)	Placebo	Mean (SD)	19.9996 (7.4873)	22.0470 (10.5024)	6.8969 (21.1552)	1.1369 (1.2838)	4.1293 (3.4602)
		Median	20.1475	19.844	0.0852	0.615	4.0995
		Min, Max	8.588, 31.647	7.986, 48.23	0, 67.1	0, 4.1172	0.0677, 14.204
	Palifermin	Mean (SD)	19.0920 (10.0442)	20.8392 (14.6189)	0.0192 (0.0187)	0.5113 (0.5548)	1.5410 (1.5038)
		Median	20.424	20.992	0.01515	0.2631	0.74325
		Min, Max	5.162, 41.344	1.5792, 58.786	0, 0.0522	0.00966, 1.824	0.0575, 5.12
% of CD8 that are CM (CCR7+CD45RA-)	Placebo	Mean (SD)	7.42 (6.24)	5.37 (5.40)	1.74 (1.65)	3.15 (3.56)	3.06 (2.75)
		Median	5.99	2.75	1.535	2.235	2.145
		Min, Max	0.087, 20.5	0.17, 17.6	0.19, 6.03	0, 13.4	0.24, 9.28
	Palifermin	Mean (SD)	7.17 (3.54)	5.15 (3.56)	2.07 (2.61)	1.58 (1.73)	3.01 (4.40)
		Median	6.795	3.08	1.005	1.13	1.975
		Min, Max	3.4, 16	0.93, 13.7	0, 7.14	0.11, 6.32	0.15, 17.6
CM CD8 (CCR7+CD45RA-) count (x10 ⁷ /L)	Placebo	Mean (SD)	6.1950 (4.8925)	5.3740 (6.3782)	0.0329 (0.0280)	0.2006 (0.1692)	0.4182 (0.3535)
		Median	5.8579	3.08	0.0277	0.1694	0.2708
		Min, Max	0.0957, 17.63	0.119, 24.288	0, 0.0848	0, 0.5832	0.0144, 1.173
	Palifermin	Mean (SD)	6.0763 (4.4641)	4.9027 (4.6015)	0.0424 (0.0432)	0.0986 (0.0913)	0.2615 (0.3478)
		Median	4.6126	2.632	0.028	0.089	0.2198
		Min, Max	1.292, 17.44	0.8835, 15.618	0, 0.112	0.0063, 0.316	0.0228, 1.408
% of CD8 that are EM (CCR7-CD45RA-)	Placebo	Mean (SD)	21.2 (9.16)	26.1 (10.81)	59.9 (25.13)	45.1 (20.70)	27.3 (15.28)
		Median	21.95	23.4	70.95	48.95	25.05
		Min, Max	1.71, 35.1	0.73, 39.8	1.93, 89.8	2.11, 73.5	2.67, 65.1
	Palifermin	Mean (SD)	28.3 (8.75)	28.2 (10.87)	58.9 (22.80)	38.9 (16.67)	30.9 (17.17)
		Median	29.3	27.7	65.6	40.65	28.75
		Min, Max	12.6, 43.5	12.9, 44.5	17.2, 86.1	5.31, 70.9	1.65, 77.5

EM CD8 (CCR7-CD45RA-) count (x10⁷/L)	Placebo	Mean (SD)	19.08 (8.81)	25.02 (10.76)	2.65 (2.65)	3.26 (1.80)	3.88 (1.80)
		Median	19.267	25.651	2.1255	2.587	4.3845
		Min, Max	0.9063, 31.35	0.511, 45.126	0, 7.882	0.0633, 6.708	0.1602, 5.89
	Palifermin	Mean (SD)	23.41 (12.42)	25.99 (18.73)	5.39 (11.81)	2.58 (1.16)	2.92 (1.69)
		Median	21.213	18.96	1.0355	2.149	2.551
		Min, Max	4.788, 46.644	5.88, 76.734	0, 34.506	1.38, 5.174	0.297, 6.975
% of CD8 that are TEMRA (CCR7-CD45RA+)	Placebo	Mean (SD)	20.7 (16.9)	21.6 (13.1)	30.8 (24.8)	33.9 (24.0)	32.4 (21.8)
		Median	13.95	16.6	21.6	31.1	21.6
		Min, Max	2.64, 59.7	6.74, 49.9	6.42, 94.3	6.05, 86.7	6.26, 72.2
	Palifermin	Mean (SD)	19.9 (17.4)	26.0 (18.7)	37.2 (23.9)	46.2 (25.1)	42.4 (27.7)
		Median	14.55	20	28.7	49.1	38.6
		Min, Max	4.48, 66.2	5.3, 69.9	10.9, 82.8	5.28, 94.5	11, 97.6
TEMRA CD8 (CCR7+CD45RA+) count (x10⁷/L)	Placebo	Mean (SD)	19.59 (18.21)	23.13 (20.17)	2.08 (2.70)	2.86 (3.04)	4.93 (4.69)
		Median	13.61	12.5718	1.3385	1.6805	3.3155
		Min, Max	1.2144, 65.67	4.9876, 70.723	0, 7.904	0.2652, 10.8	0.626, 16.709
	Palifermin	Mean (SD)	13.21 (7.55)	18.89 (9.83)	2.80 (6.71)	5.87 (9.31)	5.25 (6.19)
		Median	15.0695	17	0.6205	2.553	2.44
		Min, Max	3.1746, 25.179	4.908, 33.858	0, 19.386	0.264, 33.075	0.88, 20.275

Supplemental Table 6: Characterisation of the CD8 population into naïve (CD45RA+CCR7+), central memory (CD45RA-CCR7+), effector memory (CD45RA-CCR7-) and TEMRA (CD45RA+CCR7-) subsets. Data show either cell subset count or percentage of the total CD4+ T cell population. Data show: mean (SD), median and minimum and maximum values.

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	Palifermin		14	13	14	14	14
	Placebo	Subset count n	14	13	10	14	14
	Palifermin		14	13	8	14	14
% of CD4 that are Treg	Placebo	Mean (SD)	5.49 (2.03)	6.58 (1.60)	16.02 (10.70)	15.25 (7.13)	12.31 (6.69)
		Median	6.14	6.86	17.235	15.655	11.155
		Min, Max	0.968, 7.57	3.18, 9.34	0.799, 35.75	0.98, 31.64	3.49, 31.29
	Palifermin	Mean (SD)	5.57 (2.27)	6.48 (1.75)	13.64 (11.96)	16.31 (9.88)	13.61 (5.11)
		Median	5.32	6.29	9.02	14.505	14.845
		Min, Max	1.37, 9.95	4.26, 10.47	1.167, 34.27	2.73, 40.04	4.76, 21.43
Total Treg count (x10 ⁷ /L)	Placebo	Mean (SD)	4.815 (2.290)	6.330 (2.656)	0.401 (0.338)	1.058 (0.643)	1.644 (0.740)
		Median	4.75325	5.321	0.39995	0.87735	1.5665
		Min, Max	0.85184, 8.9326	3.7524, 13.5142	0, 1.0535	0.0784, 2.28	0.6282, 3.2147
	Palifermin	Mean (SD)	4.249 (1.877)	5.443 (2.057)	0.292 (0.242)	1.058 (0.488)	1.285 (0.525)
		Median	4.1357	5.3056	0.30185	1.0815	1.1866
		Min, Max	0.9042, 7.1484	1.7892, 9.6918	0, 0.63018	0.3582, 2.002	0.7524, 2.7344
naïve Treg count (x10 ⁷ /L)	Placebo	Mean (SD)	1.9995 (1.0568)	2.7099 (1.8087)	0.0560 (0.0665)	0.0479 (0.0377)	0.2884 (0.2075)
		Median	1.80205	1.989	0.02213	0.03875	0.23285
		Min, Max	0.6478, 3.9648	0.8296, 7.3481	0, 0.2035	0.007, 0.1128	0.0133, 0.7936
	Palifermin	Mean (SD)	1.7191 (1.1470)	1.7381 (0.8446)	0.0123 (0.0167)	0.0756 (0.0999)	0.1873 (0.2265)
		Median	1.5664	1.653	0.00925	0.0347	0.1215
		Min, Max	0.3154, 4.1322	0.35, 3.393	0, 0.05238	0, 0.35	0.0264, 0.9104
Memory Treg count (x10 ⁷ /L)	Placebo	Mean (SD)	2.815 (1.499)	3.620 (1.396)	0.345 (0.278)	1.010 (0.632)	1.355 (0.666)
		Median	2.84755	3.332	0.3735	0.8564	1.176
		Min, Max	0.08624, 5.31	1.015, 6.1661	0, 0.85	0.036, 2.175	0.3006, 2.4211
	Palifermin	Mean (SD)	2.530 (1.185)	3.705 (1.536)	0.279 (0.231)	0.983 (0.480)	1.098 (0.397)
		Median	2.46805	3.3145	0.2943	1.0115	1.049
		Min, Max	0.2442, 4.4175	1.2054, 6.2988	0, 0.586	0.351, 1.83	0.5994, 1.824

Supplemental Table 7: Characterisation of the CD4+ Treg (CD25hiCD127lo) population. Data show: n, mean (SD), median, minimum and maximum values (range).

Variable	Group	Statistic	Screening	M6
Thymic volume	Placebo	n	14	14
		Mean (SD)	8.4 (6.51)	9.1 (7.45)
		Median	8.425	7.305
		Min, Max	0.35, 21.33	0.35, 21.82
Thymic volume	Palifermin	n	14	14
		Mean (SD)	10.2 (7.41)	10.6 (7.73)
		Median	9.325	10.135
		Min, Max	0.35, 24.58	0.35, 23.55
Thymic density	Placebo	n	13	13
		Mean (SD)	-2.615 (29.5)	-0.615 (25.3)
		Median	9	-5
		Min, Max	-53, 30	-42, 34
Thymic density	Palifermin	n	12	12
		Mean (SD)	-22.167 (41.2)	-26.500 (40.4)
		Median	-15	-27.5
		Min, Max	-82, 41	-81, 37

Supplemental Table 8: Thymic size and density. Data show: n, mean (SD), median, minimum and maximum values (range).

Variable	Group	Statistic	Baseline	M1	M3	M6
Sample Numbers	Low dose	n	2	3	2	2
	Median dose		3	3	3	3
	High doses		3	2	3	3
Total CD4 Count (x10 ⁹ /L)	90mcg/Kg	Mean (SD)	0.870 (0.270)	0.065 (0.099)	0.130 (0.130)	0.127 (0.050)
		Median	0.740	0.010	0.060	0.120
		Min, Max	0.69, 1.18	0.006, 0.18	0.05, 0.28	0.08, 0.18
	120mcg/Kg	Mean (SD)	1.043 (0.463)	0.006 (0.00)	0.077 (0.046)	0.087 (0.064)
		Median	1.140	0.006	0.050	0.060
		Min, Max	0.54, 1.45	0.006, 0.006	0.05, 0.13	0.04, 0.16
	180 mcg/Kg	Mean (SD)	0.88 (0.352)	0.024 (0.031)	0.039 (0.029)	0.057 (0.015)
		Median	0.920	0.006	0.050	0.060
		Min, Max	0.51, 1.210	0.006, 0.060	0.006, 0.060	0.04, 0.070
% of CD4 that are naïve (CCR7+CD45RA+)	90mcg/Kg	Mean (SD)	44.65 (0.495)	3.55 (2.686)	1.62 (0.877)	23.45 (11.950)
		Median	44.650	5.020	1.620	23.450
		Min, Max	44.3, 45.00	0.45, 5.180	1.00, 2.240	15.0, 31.90
	120mcg/Kg	Mean (SD)	37.8 (16.441)	2.617 (2.724)	4.19 (2.745)	7.587 (8.325)
		Median	45.700	1.820	2.820	2.810
		Min, Max	18.9, 48.80	0.38, 5.65	2.4, 2.35	2.75, 17.20
	180mcg/Kg	Mean (SD)	30.567 (6.527)	1.575 (0.134)	7.83 (3.189)	10.963 (9.595)
		Median	27.000	1.575	8.230	7.540
		Min, Max	26.6, 38.10	1.48, 1.670	4.46, 10.80	3.55, 21.80
Naïve CD4 (CCR7+CD45RA+) count (x10 ⁷ /L)	90mcg/Kg	Mean (SD)	42.787 (13.42)	0.05492 (0.02467)	0.2072 (0.1296)	2.176 (0.5317)
		Median	42.787	0.0518	0.2072	2.176
		Min, Max	33.3, 52.274	0.031947, 0.081	0.1344, 0.28	1.8, 2.552
	120mcg/Kg	Mean (SD)	44.3547 (31.0107)	0.01665 (0.01733)	0.2847 (0.14264)	0.52813 (0.4661)
		Median	52.098	0.011582	0.3666	0.44
		Min, Max	10.206, 70.76	0.00242, 0.03596	0.12, 0.3675	0.1124, 1.032
	180mcg/Kg	Mean (SD)	28.114 (16.470)	0.04971 (0.05528)	0.26184 (0.2152)	0.5376 (0.3296)
		Median	24.472	0.04971	0.223	0.5278
		Min, Max	13.77, 46.101	0.01063, 0.0888	0.0687, 0.4938	0.213, 0.872

Supplemental Table 9: Dose tolerability sub-study CD4 results - characterisation into naïve (CD45RA+CCR7+), central memory (CD45RA-CCR7+), effector memory (CD45RA-CCR7-) and TEMRA (CD45RA+CCR7-) subsets. Data show either cell subset count or percentage of the total CD4+ T cell population. Data show: mean (SD), median and minimum and maximum values.

Variable	Group	Statistic	Baseline	M6
Sample Numbers	Low dose	n	3	3
	Median dose		3	3
	High doses		3	3
TRECS/mL	90mcg/Kg	Mean (SD) Median Min, Max	8855·98 (5048·31) 8601·87 3939·52, 14026·54	1590·20 (1104·48) 1428·48 575·50, 2766·63
	120mcg/Kg	Mean (SD) Median Min, Max	4027·24 (2920·84) 5226·54 697·65, 6157·54	295·11(258·64) 193·75 102·51, 589·08
	180 mcg/Kg	Mean (SD) Median Min, Max	3050·29 (1162·30) 2863·32 1992·81, 4294·75	274·86 (225·87) 159·63 129·85, 535·10
TRECS/mL as % of baseline	90mcg/Kg	Mean (SD) Median Min, Max	-	20·89 (14·82) 19·72 6·69, 36·26
	120mcg/Kg	Mean (SD) Median Min, Max	-	13·57 (13·20) 11·27 1·66, 27·77
	180 mcg/Kg	Mean (SD) Median Min, Max	-	9·64 (7·96) 6·52 3·72, 18·69

Supplemental Table 10: Dose-tolerability sub-study T-cell receptor circles (TRECs)/mL of blood results. Data show: n, mean (SD), median, minimum and maximum values (range).

		90cg/kg/day	120mcg/kg/day	180mcg/kg/day
Infusion-associated symptoms occurring at baseline	Erythematous skin rash	3	3	3
	Oral symptoms	3	3	3
	Oedema (facial/hands)	1	3	3
	Urticarial skin rash	1	0	2
	Discoloured tongue	3	3	3
	Pyrexia	3	2	1
	Headache	2	0	2
	Skin sensitivity	0	0	2
	Fatigue	0	0	1
	Chest tightness	2	0	1
	GI upset	1	1	2
Infusion-associated symptoms occurring with IMP at month 1 and month 3	Erythematous skin rash	2	3	2
	Oral symptoms	3	3	3
	Oedema (facial/hands)	3	3	3
	Discoloured tongue	3	3	3
	Skin sensitivity	0	0	1
	Peeling skin	0	1	0
	Pyrexia	1	1	0
	GI upset	1	0	1
AEs unrelated to infusions	Hair loss	1	1	2
	Dry skin	2	1	2
	Nail changes (ridging)	1	0	1
	Upper respiratory tract infection	2	0	1
	Fatigue	1	0	0
	Low mood	1	1	0

Supplemental Table 11: Adverse event data for sub-study patients only. The data is broken down by the daily dose of Palifermin given (adverse event data for those in the main study, all of whom were treated with 180mcg/kg/day, are shown in table 2). Data are incidence (n). All events were categorised as either severity grade 1 or 2.