

1 **Title: Immune parameters of HIV susceptibility in the female genital tract before and after**
2 **penile-vaginal sex**

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19 **Conflict of interests:** The authors declare no competing interests.

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21 **SUPPLEMENTARY TABLE 1. Participant characteristic in women who had condomless**
 22 **sex based on circumcision status of the male partner**

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Characteristic	Uncircumcised (n=16)	Circumcised (n=13)
Age (median; range)	22 (18-33)	21 (19-33)
Ethnicity		
Asian (East or South Asian)	7 (43.8)	3 (23.1)
White	5 (31.3)	5 (38.5)
African-Caribbean and Black	1 (6.3)	1 (7.7)
Latin American	1 (6.3)	0
Middle Eastern	0	1 (7.7)
Mixed	2 (12.5)	3 (23.1)
Contraceptive method		
Oral contraceptive pill	5 (31.3)	5 (38.5)
Condom	3 (18.8)	1 (7.7)
Hormonal IUD	2 (12.5)	2 (15.4)
Copper IUD	1 (6.3)	2 (15.4)
NuvaRing	1 (6.3)	1 (7.7)
Condom and hormonal	0	1 (7.7)
None	4 (25)	1 (7.7)
Vaginal douching	2 (12.5)	2 (15.4)
Bacterial vaginosis	2 (12.5)	3 (23.1)
Relationship length (months)	11 (1-72)	24 (2-96)
Time since last sex (days)	3 (2-23)	4 (3-10)
STI history	2 (12.5)	1 (7.7)

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35 **SUPPLEMENTARY TABLE 2. Baseline cytokine levels in semen based on circumcision**
 36 **status**

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Cytokines	Semen		p-value
	Uncircumcised (Median, range)	Circumcised (Median, range)	
IP-10	40,643.17 (1,499.81-77,457.33)	35,328.39 (14,591.45,328,349.53)	0.934
MIG	23,426.74 (471.79-38,100.08)	23,820.07 (4,233.68-333,954.49)	0.561
MIP-1β	630.23 (124.64-10,281.91)	720.32 (134.80-8,346.62)	0.678
IL-8	1,045.19 (159.87-18,608.36)	1,182.54 (265.75-12,110)	0.901
MIP-3α	1,159.77 (20.54-5,4791.11)	919.04 (394.81-19,212.50)	0.901
IL-1α	188.92 (79.46-2,695.76)	176.11 (72.10-64,079)	0.901
IL-6	8.11 (1.20-126.27)	8.42 (0.88-144.80)	0.506
IL-17	11.79 (2.43-258)	11.25 (4.20-644.94)	0.835
IFNα2a	39.63 (6.93-65.61)	39.04 (17.99-705.95)	0.771
sE-cadherin	290,649.64 (35,808.05-786,586.53)	266,298.45 (129,735.20-3,053,534.76)	0.739
MMP9	3,392.52 (461.92-1,246,997.34)	11,916.09 (164.55-723,728.70)	0.280

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41 **SUPPLEMENTARY TABLE 3. Baseline cytokine levels in cervico-vaginal secretion based**
 42 **on circumcision status of the male partner**

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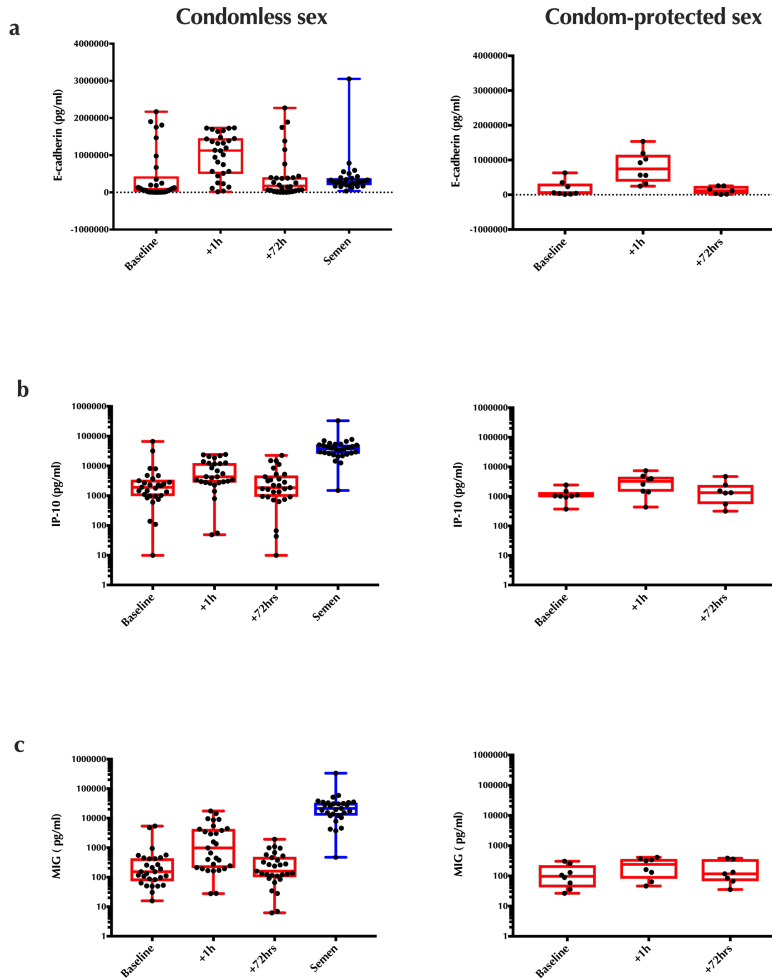
Cytokines	Cervico-vaginal secretion		p-value
	Uncircumcised (Median, range)	Circumcised (Median, range)	
IP-10	2,214.90 (108.91-66,407.83)	1,458.19 (9.90-8,181.43)	0.599
MIG	124.60 (49.40-5,393.74)	153.57 (15.82-940.45)	0.792
MIP-1β	307.07 (139-3,979)	518.92 (139-4,784.98)	0.303
IL-8	28,435.45 (364.73-37,935.93)	24,851.75 (2,082.25-42,978.93)	0.630
MIP-3α	766.29 (119.82-19,736)	793.03 (73.43-17,573.81)	0.965
IL-1α	23,507.52 (3,334.60-545,981.71)	43,041.81 (5,468.27-233,021.32)	0.079
IL-6	47.78 (3.71-2,524.54)	116.68 (5.05-2,302.65)	0.335
IL-17	25.89 (12-717.60)	44.04 (12-411.25)	0.403
IFNα2a	16.4 (5.16-124.31)	24.54 (2.80-42.11)	0.826
sE-cadherin	66,766.81 (1,980.38-2,169,304.19)	111,666.7 (2,136.33-1,904,214.72)	0.456
MMP9	21,473.07 (124.49-3,560,343.5)	576,234.27 (763.33-2,712,754.25)	0.288

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47 **SUPPLEMENTARY FIGURE 1. The levels of cytokines in cervico-vaginal secretions and**
48 **semen**

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52 **SUPPLEMENTARY FIGURE 1. The levels of cytokines in cervico-vaginal secretions and**

53 **semen. The level of (a) soluble E-cadherin (pg/ml), (b) IP-10 (pg/ml), (c) MIG (pg/ml), in**

54 **cervico-vaginal secretion (baseline, 1 hour and 72 hours) after condomless (N=29) and condom-**

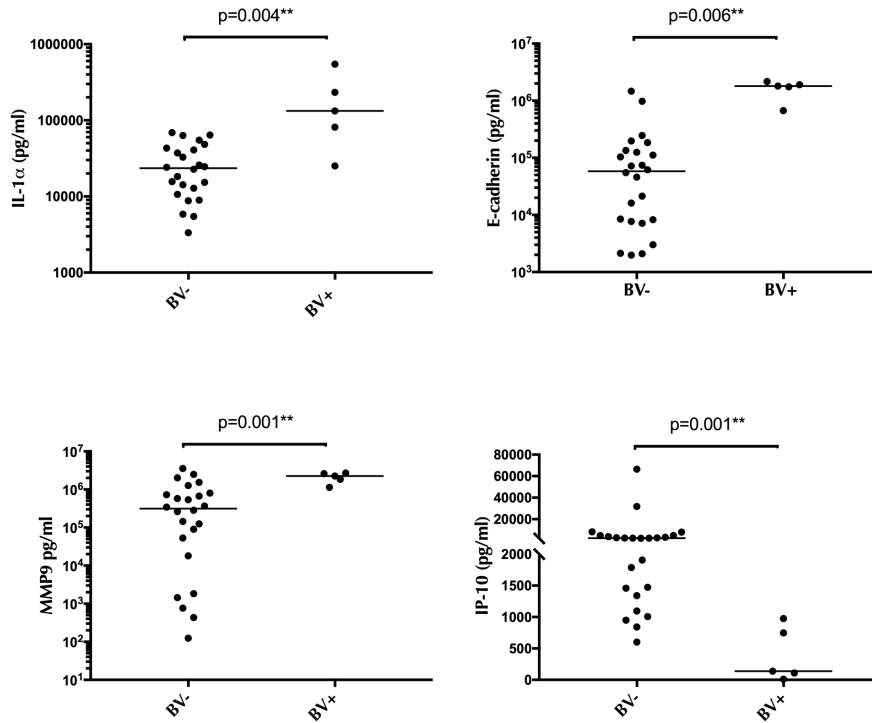
55 **protected sex (N=8), and semen (baseline). The box plots represent the median, with interquartile**

56 **and minimum to maximum ranges. The red box plots represent cervico-vaginal secretions, and**

57 **the blue box plots represent semen.**

58 **SUPPLEMENTARY FIGURE 2. Baseline levels of cytokines in cervico-vaginal secretion of**
59 **BV+ and BV- women.**

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63 **SUPPLEMENTARY FIGURE 2. Baseline levels of cytokines in cervicovaginal secretions of**

64 **BV+ and BV- women.** The level of cervico-vaginal cytokine concentrations is compared

65 between BV+ (N=5) and BV- women (N=24) in condomless group. Statistical comparisons were

66 performed using Mann-Witney U test. BV stands for bacterial vaginosis.

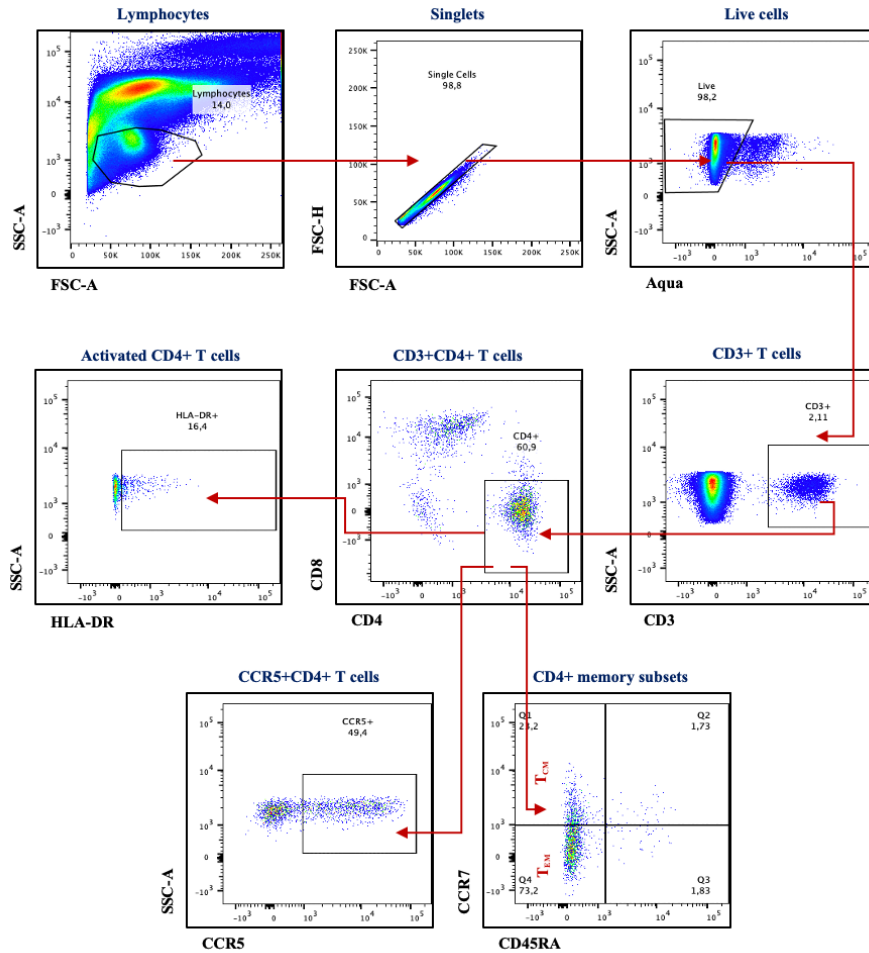
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70 SUPPLEMENTARY FIGURE 3. Gating strategy and representative plots for endocervical
71 activated, CCR5+ and memory CD4+ T cells subsets.

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75 SUPPLEMENTARY FIGURE 3. Gating strategy and representative plots for endocervical
76 activated, CCR5+ and memory CD4+ T cells subsets.

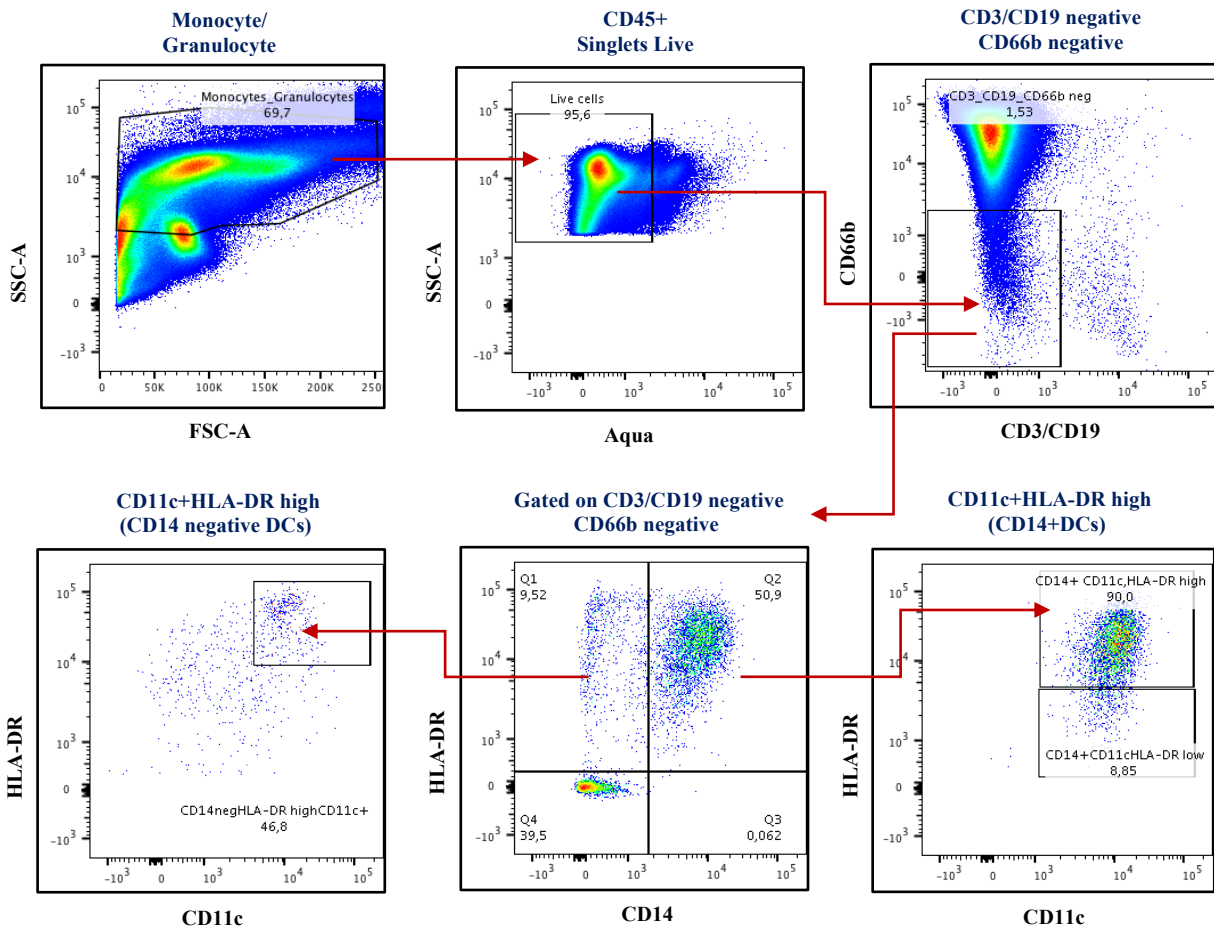
77 Cells were gated on lymphocytes, singlets, live, CD3+ cells, CD4+ cells, HLA-DR+CD4+ T
78 cells (activated CD4+ T cells), CCR5+CD4+ T cells and CD4+ memory subsets (Central

79 memory: CCR7-CD45RA+; effector memory: CCR7-CD45RA-).

80 SUPPLEMENTARY FIGURE 4. Gating strategy and representative plots for endocervical
 81 Dendritic cells population.

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89 SUPPLEMENTARY FIGURE 4. Gating strategy and representative plots for endocervical

90 Dendritic cells population. Cells were gated on monocytes, CD45+ cells, singlets, CD3/CD19

91 negative, CD66b negative cells, based on CD14 and HLA-DR expressions two subsets of

92 dendritic cells (DCs): monocyte-derived DCs (CD11c+HLA-Dr highCD14+), CD14- DCs

93 (CD11c+ HLA-DR highCD14-).

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