

Supplementary Table S1 Semen parameters from the 20 healthy volunteers.

Parameters	Minimum	25% Percentile	Median	75% Percentile	Maximum	Mean	Std. error
Progressive motility (%)	47.59	62.94	77.86	85.08	93.54	74.47	3.02
Total motility (%)	75.72	86.65	93.39	95.76	98.05	91.04	1.47
Distance curved line (DCL; mm)	19.17	26.19	29.85	34.14	43.14	30.39	1.42
Distance average path (DAP; mm)	12.75	17.47	19.78	22.12	27.39	19.88	0.78
Distance straight line (DSL; mm)	9.460	12.41	14.00	15.74	20.60	14.18	0.59
Curvilinear velocity (VCL; mm/s)	44.08	60.51	68.94	79.79	97.40	70.26	3.39
Average path velocity (VAP; mm/s)	29.40	41.13	44.72	52.85	61.29	46.00	1.84
Straight-line velocity (VSL; mm/s)	21.86	28.42	33.05	36.47	46.09	32.83	1.33
Linearity (LIN; VSL/VCL)	0.36	0.41	0.48	0.51	0.59	0.47	0.013
Straightness (STR; VSL/VAP)	0.62	0.67	0.70	0.74	0.82	0.71	0.011
Wobble (WOB; VAP/VCL)	0.57	0.61	0.67	0.70	0.72	0.66	0.011
Beat cross frequency BCF (Hz)	21.97	23.66	25.93	26.68	28.83	25.46	0.42
Amplitude of lateral head displacement ALH (mm)	1.450	2.388	2.765	3.040	4.000	2.733	0.14
Average orientation change of the head (AOC; deg)	16.39	20.35	23.22	24.79	27.87	22.74	0.63