HISTORICAL CONTROL DATA OF SPERM ANALYSES FROM 2-GENERATION AND FERTILITY STUDIES IN HsdRccHan^{TM}: WIST, Wistar Hannover Rats

Compiled from 2-Generation and Fertility Studies performed at RCC Ltd. Itingen/Switzerland

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Table 1: Study identification

Study ID	Number of study	Date of performance	GEN/Seg
1	842842	2002 / 2003	2- Gen.
2	854107	2004 / 2005	2- Gen.
3	858666	2005	Seg I
4	A10934	2005	Seg I

Table 2: Sperm analysis - motilty

P-Generation	Unit	1	2	3	4
Not motile	mean	13	12	14	14
%	st. dev.	5	3	6	8
	n (litters)	24	9*	21	22
Stat. motile	mean	34	30	23	29
%	st. dev.	4	4	4	7
	n (litters)	24	9*	21	22
Prog. motile	mean	53	58	63	56
%	st. dev.	6	6	8	11
	n (litters)	24	9*	21	22

F1 - Generation	Unit	1	2	3	4
Not motile	mean	12	12	-	-
%	st. dev.	4	4	-	-
	n (litters)	23	10	-	-
Stat. motile	mean	30	30	-	-
%	st. dev.	10	7	-	-
	n (litters)	23	10	-	-
Prog. motile	mean	58	58	-	-
%	st. dev.	11	7	-	-
	n (litters)	23	10	-	-

* = Animal No. 10: small left testis & epididymidis; excluded from summary tables

Table 3: Sperm analysis - morphology

P- Generation	Unit	1	2	3	4
A	mean	93.3*	94.4**	93.6**	93.1**
%	st. dev.	2.3	0.9	2.8	1.9
	n (litters)	24	9***	21	22
B	mean	3.2*	1.9**	2.81**	2.8**
%	st. dev.	1.5	0.6	2.66	1.5
	n (litters)	24	9***	21	22
C	mean	0.8*	0.4**	0.8**	0.6**
%	st. dev.	0.8	0.4	0.4	0.4
	n (litters)	24	9***	21	22
D	mean	2.3*	3.0**	2.4**	3.0**
%	st. dev.	1	1	1.2	0.7
	n (litters)	24	9***	21	22
E	mean	0.0*	0.0**	0.0**	0.0**
%	st. dev.	0.1	0.1	0.1	0.1
	n (litters)	24	9***	21	22
F	mean	0.4*	0.3**	0.4**	0.5**
%	st. dev.	0.3	0.2	0.3	0.3
	n (litters)	24	9***	21	22

Table 3: Sperm analysis - morphology. Cont'd

F1-Generation	Unit	1	2	3	4
A	mean	92.6*	94.4*	-	-
%	st. dev.	2.3	1.4	-	-
	n (litters)	23	10	-	-
B	mean	2.9*	1.9*	-	-
%	st. dev.	1.4	0.7	-	-
	n (litters)	23	10	-	-
C	mean	0.9*	0.5*	-	-
%	st. dev.	1	0.2	-	-
	n (litters)	23	10	-	-
D	mean	3.2*	2.4*	-	-
%	st. dev.	1	0.8	-	-
	n (litters)	23	10	-	-
E	mean	0.1*	0.0*	-	-
%	st. dev.	0.1	0.1	-	-
	n (litters)	23	10	-	-
F	mean	0.3*	0.7*	-	-
%	st. dev.	0.3	0.7	-	-
	n (litters)	23	10	-	-

Table 3: Sperm analysis - morphology. Cont'd

*	**
A = Normal, complete sperm	A = Sperm with normal hook and tail
B = Normal head only (tail	B = Normal hook without tail
C = Complete sperm with	C = Misshapen sperm hook with tail
D = Complete sperm with	D = Sperm with abnormal curved hook
E = Complete sperm with reversed	with tail
F = Abnormal head only (tail	E = Sperm with reversed hook with tail
	F = Abnormal hook without tail

*** = Animal No. 10: small left testis & epididymidis; excluded from summary tables

Table 4: Sperm analysis - sperm head count

P-Generation	Unit	1	2	3	4
Cauda Epidid	mean	657.6	685.7	591.1	696.8
mio/g Org.	st. dev.	76.5	174.6	54.56	66.58
	n (litters)	24	9*	21	22
Testis	mean	137.1	139.6	117.7	134.1
mio/g Org.	st. dev.	21.68	14.88	11.32	15.96
	n (litters)	24	9*	21	22

F1-Generation	Unit	1	2	3	4
Cauda Epidid	mean	575.5	652.7	-	-
mio/g Org.	st. dev.	75.96	126.4	-	-
	n (litters)	23	10	-	-
Testis	mean	115.1	137.4	-	-
mio/g Org.	st. dev.	11.87	28.31	-	-
	n (litters)	23	10	-	-

* = Animal No. 10: small left testis & epididymidis; excluded from summary tables

Table 5: Statistics sperm analysis - motility

P-Generation	Unit	Total n	Mean	STDEV	MIN	MAX
Not motile	mean	53	13.25	0.96	12.00	14.00
	n (litters)	76	19.00	6.78	9.00	24.00
Stat. motile	mean	116	29.00	4.55	23.00	34.00
	n (litters)	76	19.00	6.78	9.00	24.00
Prog. motile	mean	230	57.50	4.20	53.00	63.00
	n (litters)	76	19.00	6.78	9.00	24.00

F1 -Generation	Unit	Total n	Mean	STDEV	MIN	MAX
Not motile	mean	24	12.00	0.00	12.00	12.00
	n (litters)	33	16.50	9.19	10.00	23.00
Stat. motile	mean	60	30.00	0.00	30.00	30.00
	n (litters)	33	16.50	9.19	10.00	23.00
Prog. motile	mean	116	58.00	0.00	58.00	58.00
	n (litters)	33	16.50	9.19	10.00	23.00

* = Animal No. 10: small left testis & epididymidis; excluded from summary tables

Table 6: Statistics sperm analysis - morphology

P-Generation	Unit	Total n	Mean	STDEV	MIN	MAX
A	mean	374	93.60	0.57	93.10	94.40
	n (litters)	76	19.00	6.78	9.00	24.00
B	mean	11	2.68	0.55	1.90	3.20
	n (litters)	76	19.00	6.78	9.00	24.00
C	mean	3	0.65	0.19	0.40	0.80
	n (litters)	76	19.00	6.78	9.00	24.00
D	mean	11	2.68	0.38	2.30	3.00
	n (litters)	76	19.00	6.78	9.00	24.00
E	mean	0	0.00	0.00	0.00	0.00
	n (litters)	76	19.00	6.78	9.00	24.00
F	mean	2	0.40	0.08	0.30	0.50
	n (litters)	76	19.00	6.78	9.00	24.00

Table 6: Statistics sperm analysis - morphology. Cont'd

F1-Generation	Unit	Total n	Mean	STDEV	MIN	MAX
A	mean	187	93.50	1.27	92.60	94.40
	n (litters)	33	16.50	9.19	10.00	23.00
B	mean	5	2.40	0.71	1.90	2.90
	n (litters)	33	16.50	9.19	10.00	23.00
C	mean	1	0.70	0.28	0.50	0.90
	n (litters)	33	16.50	9.19	10.00	23.00
D	mean	6	2.80	0.57	2.40	3.20
	n (litters)	33	16.50	9.19	10.00	23.00
E	mean	0	0.05	0.07	0.00	0.10
	n (litters)	33	16.50	9.19	10.00	23.00
F	mean	1	0.50	0.28	0.30	0.70
	n (litters)	33	16.50	9.19	10.00	23.00

Table 7: Statistics sperm analysis - sperm head count

P-Generation	Unit	Total n	Mean	STDEV	MIN	MAX
Cauda Epidid	mean	2631	657.80	47.43	591.10	696.79
mio/g Org.	st. dev.	372	93.05	55.09	54.56	174.58
	n (litters)	76	19.00	6.78	9.00	24.00
Testis	mean	528	132.12	9.87	117.71	139.61
mio/g Org.	st. dev.	64	15.96	4.30	11.32	21.68
	n (litters)	76	19.00	6.78	9.00	24.00

F1-Generation	Unit	Total n	Mean	STDEV	MIN	MAX
Cauda Epidid	mean	1228	614.13	54.57	575.54	652.72
mio/g Org.	st. dev.	202	101.16	35.64	75.96	126.36
	n (litters)	33	16.50	9.19	10.00	23.00
Testis	mean	252	126.21	15.75	115.07	137.35
mio/g Org.	st. dev.	40	20.09	11.62	11.87	28.31
	n (litters)	33	16.50	9.19	10.00	23.00