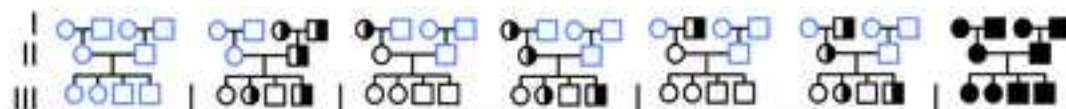
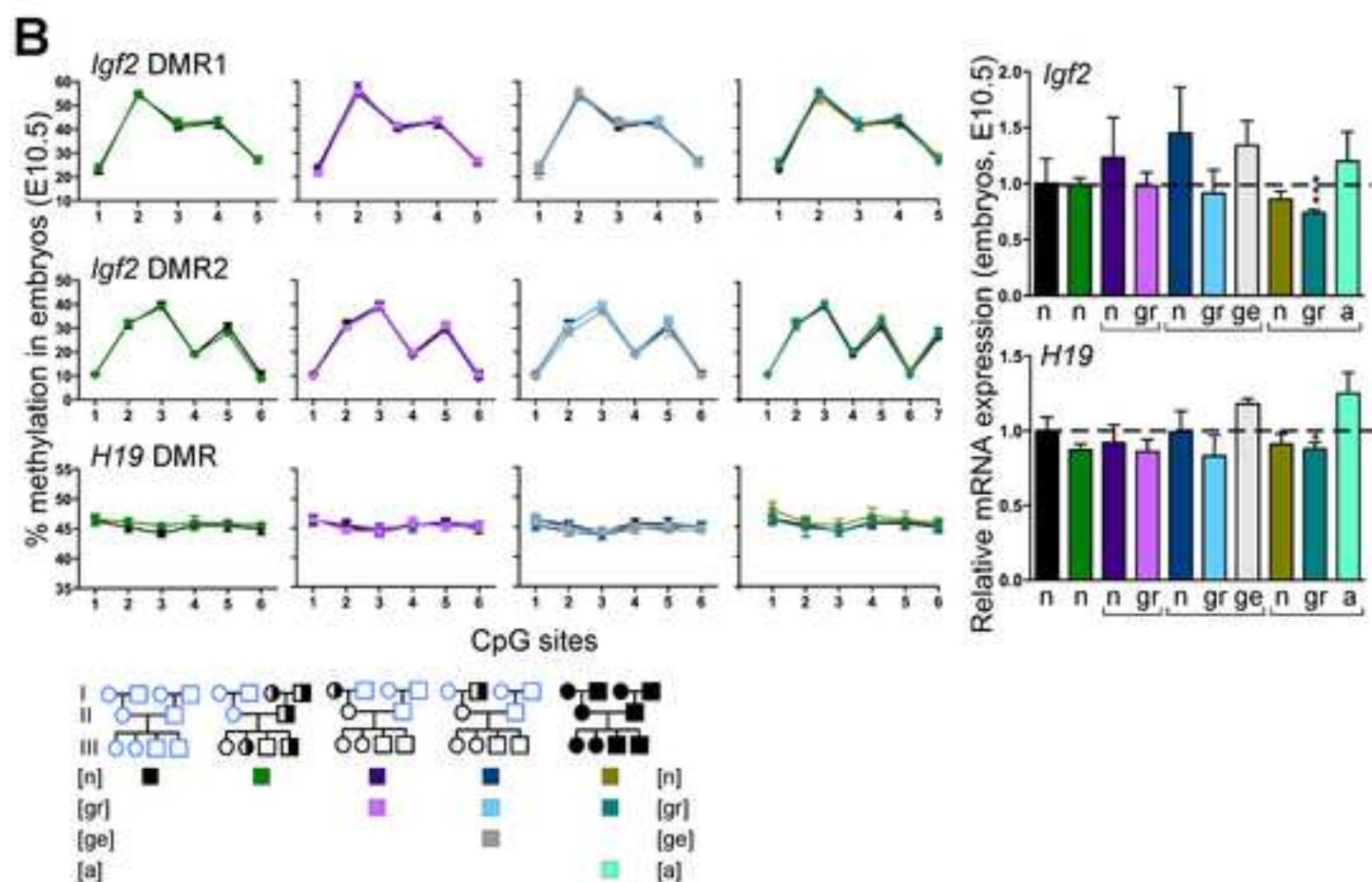
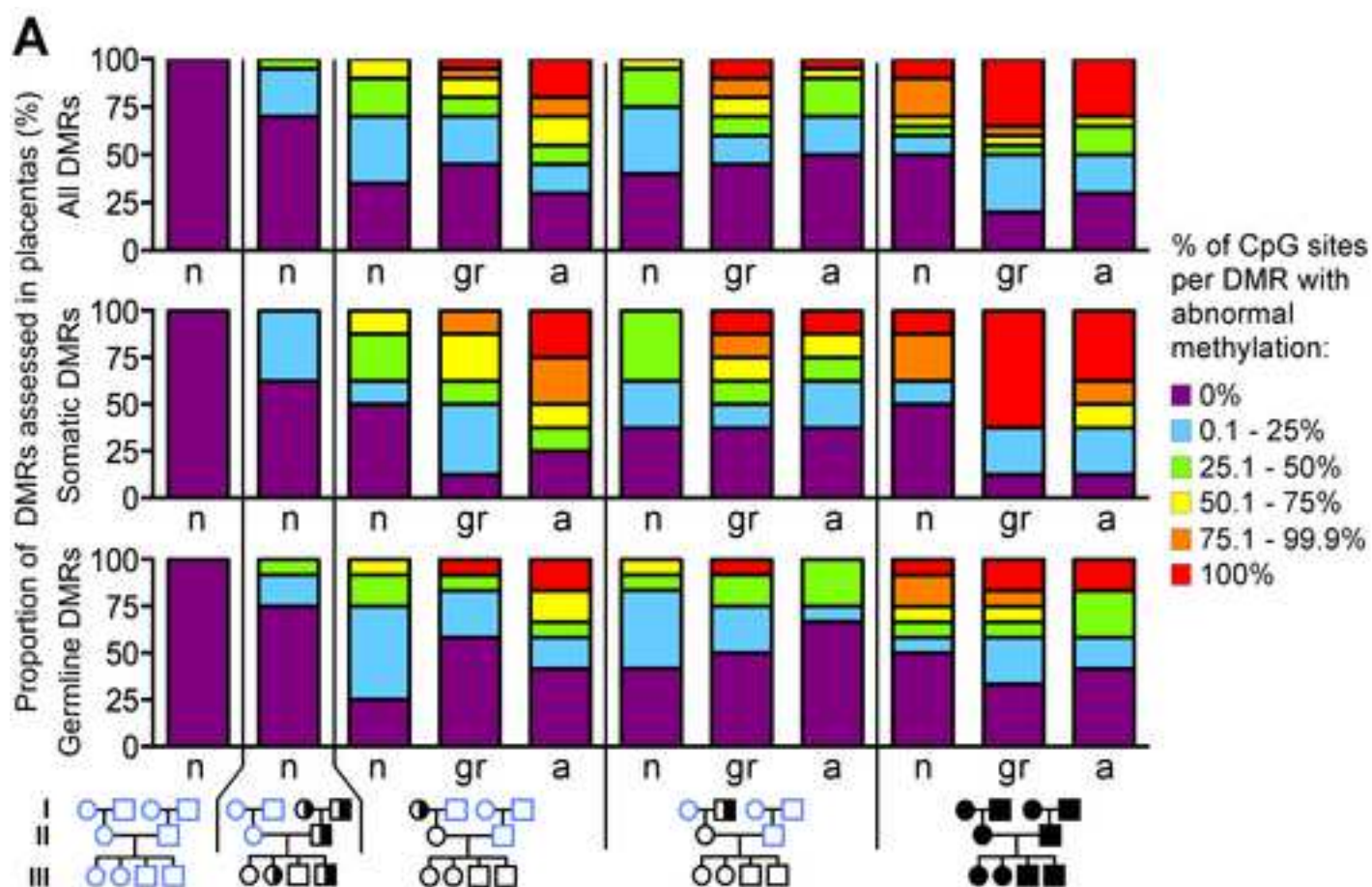
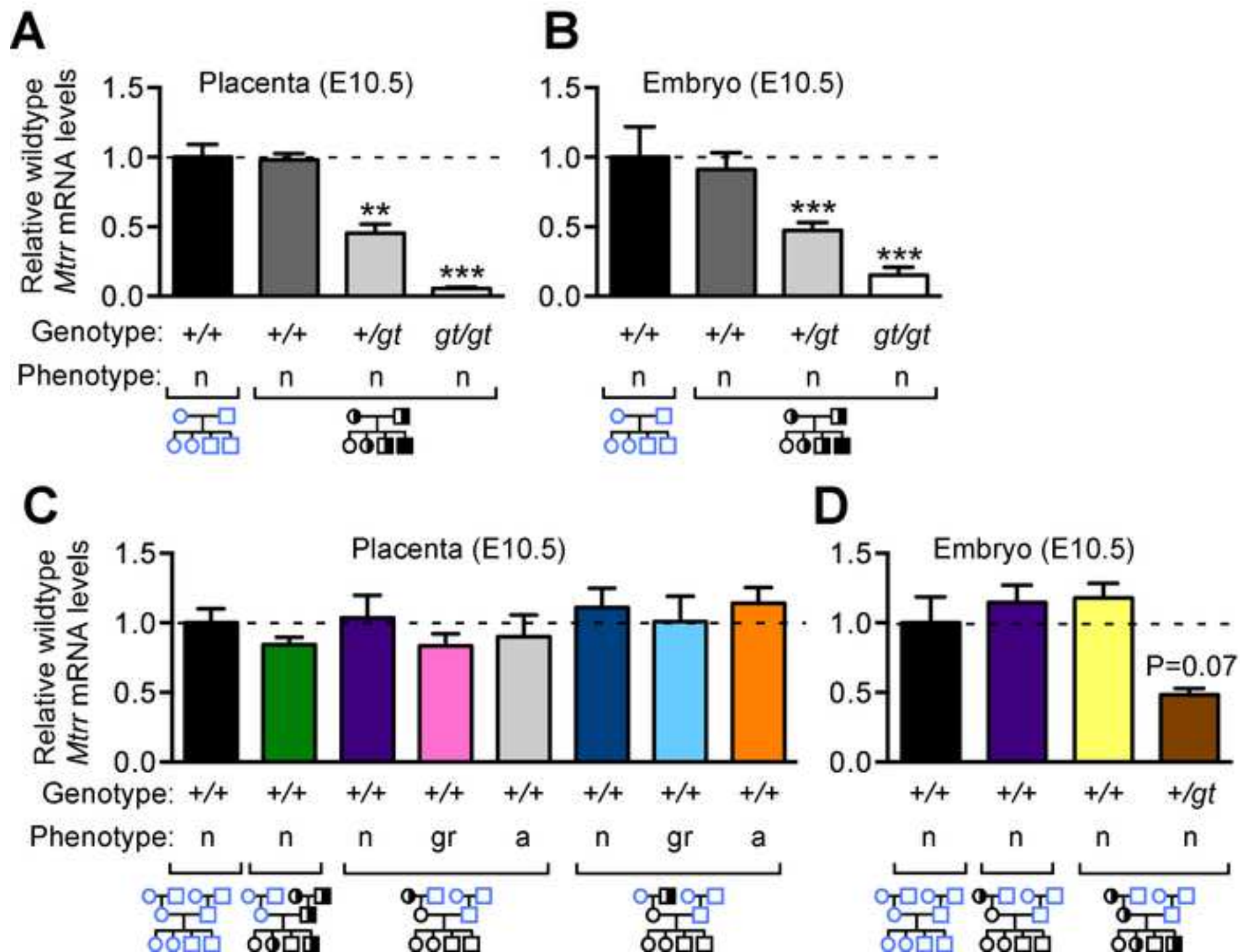


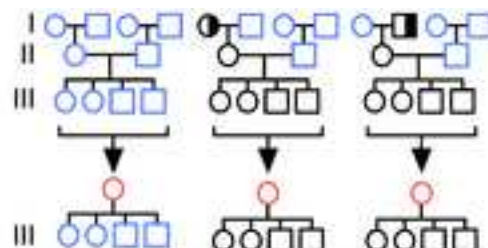
Average No. of conceptuses/litter (No. of implantations)		9.3±0.3 (93)	6.7±1.1 (47)	8.0±0.5* (56)	7.7±1.1 (54)	7.4±0.8* (59)	
Normal stage		8.9±0.4 (95.7%)	5.3±1.3 ^a (78.7%)	2.7±1.2** (33.9%)	3.3±1.2** (42.6%)	3.4±0.9*** (45.8%)	
Developmental delay	Total	0.0	0.1±0.1 ^b (2.1%)	2.4±0.5*** (30.4%)	2.0±0.9*** (25.9%)	1.9±0.7*** (25.4%)	
	≥E9.5-E10.0 (21-29 s)	0.0	0.1±0.1 (2.1%)	2.3±0.6*** (29.1%)	1.6±0.6* (20.3%)	1.4±0.6*** (18.6%)	
	≥E8.5-E9.5 (8-20 s)	0.0	0.0	0.1±0.1 (1.8%)	0.4±0.3 (5.6%)	0.5±0.5 (6.8%)	
	<E8.5 (<8 s)	0.0	0.0	0.0	0.0	0.0	
Severe Abnormalities	Overall total		0.0	0.3±0.2 (4.3%)	1.4±0.4*** (17.9%)	0.9±0.3* (11.1%)	1.3±0.4*** (16.9%)
	>1 phenotype		0.0	0.0 ^b	0.7±0.3** (9.1%)	0.1±0.1 (1.9%)	0.1±0.1 (1.7%)
	Placenta	Off-centered CA	0.0	0.0	0.7±0.3** (9.1%)	0.1±0.1 (1.9%)	0.5±0.2* (6.8%)
		No CA	0.0	0.0	0.0	0.0	0.0
		Total	0.0	0.0 ^b	0.7±0.3** (9.1%)	0.1±0.1 (1.9%)	0.5±0.2* (6.8%)
	Heart	Pericardial edema	0.0	0.0	0.1±0.1 (1.7%)	0.0	0.0
		Reversed looping	0.0	0.0	0.0	0.0	0.0
		Enlarged heart	0.0	0.0	0.4±0.2 (5.4%)	0.1±0.1 (1.9%)	0.1±0.1 (1.7%)
		Total	0.0	0.0 ^b	0.6±0.2** (7.2%)	0.1±0.1 (1.8%)	0.1±0.1 (1.7%)
	Neural tube	Cranial NTD	0.0	0.1±0.1 (2.1%)	0.6±0.2* (7.3%)	0.2±0.1 (3.7%)	0.5±0.4 (6.8%)
		Spinal NTD	0.0	0.0	0.0	0.0	0.0
		Total	0.0	0.1±0.1 (2.1%)	0.6±0.2* (7.3%)	0.2±0.1 (3.7%)	0.5±0.4 (6.8%)
	Hemorrhages	Placenta	0.0	0.1±0.1 (2.1%)	0.2±0.1 (1.8%)	0.2±0.2 (3.7%)	0.1±0.2 (3.4%)
		Embryo	0.0	0.0	0.0	0.2±0.2 (3.7%)	0.0
		Total	0.0	0.1±0.1 (2.1%)	0.2±0.1 (1.8%)	0.3±0.3 (7.4%)	0.1±0.2 (3.4%)
	Resorptions		0.4±0.2 (4.3%)	1.0±0.4 (14.9%)	1.4±0.4* (17.9%)	1.6±0.5* (20.4%)	0.9±0.4 (11.9%)



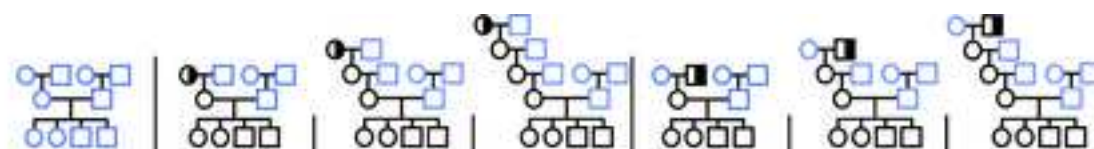
No. of MGMs, MGFs or fathers		3 ^{a,b}	3 ^c	7 ^a	7 ^a	3 ^b	4 ^b	7 ^a , 3 ^b	
No. of litters (No. of conceptuses)		10 (93)	10 (94)	10 (83)	14 (129)	10 (89)	10 (87)	21 (176)	
Average conceptuses/litter		9.3±0.3	9.4±0.3	8.2±0.9	9.2±0.4	8.9±0.5	8.7±0.3	8.4±0.6	
Developmental delay	≥E9.5-E10.0 (21-29 s)	0.0	0.0	0.7±0.3* (8.5%)	0.4±0.2* (4.7%)	0.1±0.1 (1.1%)	0.1±0.1 (1.1%)	1.3±0.4* (15.3%)	
	≥E8.5-E9.5 (8-20 s)	0.0	0.0	0.0	0.2±0.1 (2.3%)	0.5±0.3 (5.6%)	0.9±0.4* (10.3%)	0.4±0.2 (5.1%)	
	<E8.5 (<8 s)	0.0	0.0	0.0	0.0	0.0	0.1±0.1 (1.1%)	0.1±0.1 (1.7%)	
	Total	0.0	0.0	0.7±0.3* (8.5%)	0.6±0.3* (7.0%)	0.6±0.3 (6.7%)	1.1±0.5* (12.6%)	1.9±0.5** (22.2%)	
Severe Abnormalities	Overall total	0.0	0.1±0.1 (1.1%)	1.4±0.3** (17.1%)	1.1±0.3** (11.6%)	1.0±0.2*** (12.4%)	0.8±0.3* (9.2%)	1.3±0.2** (15.9%)	
	>1 phenotype	0.0	0.0	0.5±0.2* (6.0%)	0.4±0.1* (3.9%)	0.4±0.2* (4.5%)	0.6±0.2* (6.9%)	0.6±0.2* (6.3%)	
	Placenta	Off-centered CA	0.0	0.1±0.1 (1.1%)	0.5±0.2* (7.3%)	0.4±0.2* (3.9%)	0.2±0.1 (2.2%)	0.2±0.1 (2.3%)	0.6±0.1** (7.4%)
		No CA	0.0	0.0	0.3±0.2 (2.4%)	0.1±0.1 (0.8%)	0.0	0.2±0.1 (2.3%)	0.1±0.1 (0.6%)
		Total	0.0	0.1±0.1 (1.1%)	0.8±0.3* (9.8%)	0.4±0.1* (4.7%)	0.2±0.1 (2.2%)	0.4±0.2* (4.6%)	0.7±0.2** (8.0%)
	Heart	Pericardial edema	0.0	0.0	0.3±0.2* (2.4%)	0.0*	0.3±0.2* (3.4%)	0.2±0.1 (2.3%)	0.4±0.1 (4.5%)
		Reversed looping	0.0	0.0	0.0	0.1±0.1 (0.8%)	0.0	0.0	0.0
		Enlarged heart	0.0	0.0	0.2±0.1 (3.7%)	0.2±0.1 (2.3%)	0.2±0.1 (2.2%)	0.0	0.2±0.1 (2.8%)
		Total	0.0	0.0	0.4±0.2* (6.1%)	0.3±0.1 (3.1%)	0.4±0.2* (5.7%)	0.2±0.1 (2.3%)	0.6±0.2* (7.4%)
	Neural tube	Cranial NTD	0.0	0.0	0.1±0.1 (1.2%)	0.1±0.1 (0.8%)	0.1±0.1 (1.1%)	0.4±0.2* (4.6%)	0.2±0.1 (2.3%)
		Spinal NTD	0.0	0.0	0.2±0.1 (2.4%)	0.0	0.1±0.1 (1.1%)	0.0	0.0
		Total	0.0	0.0	0.3±0.2 (3.6%)	0.1±0.1 (0.8%)	0.2±0.1 (2.2%)	0.4±0.2* (4.6%)	0.2±0.1 (2.3%)
	Hemorrhages	Placenta	0.0	0.0	0.3±0.2 (3.6%)	0.3±0.1 (2.3%)	0.1±0.1 (1.1%)	0.3±0.2 (3.4%)	0.2±0.1 (2.3%)
		Embryo	0.0	0.0	0.0	0.1±0.1 (1.6%)	0.3±0.2 (3.4%)	0.1±0.1 (1.1%)	0.2±0.1 (2.8%)
		Total	0.0	0.0	0.3±0.2 (3.6%)	0.4±0.1* (3.9%)	0.4±0.2* (4.5%)	0.4±0.2* (4.5%)	0.4±0.1 (5.1%)
Twins/Triplets	0.0	0.0	0.1±0.1 (1.2%)	0.1±0.1 (1.6%)	0.2±0.1 (2.2%)	0.1±0.1 (1.1%)	0.1±0.1 (0.6%)		
Resorptions	0.4±0.2 (4.3%)	0.4±0.2 (4.3%)	0.9±0.4 (11.0%)	0.6±0.1 (6.2%)	0.3±0.2 (3.4%)	0.7±0.3 (8.0%)	1.2±0.4 (14.2%)		







Average No. of embryos transferred/litter [E3.5] (N)		9.1 ± 0.3 (91)	7.6 ± 0.4** (53)	8.9 ± 0.5 (89)		
Average No. of conceptuses /litter [E10.5] (N)		5.4 ± 0.5 (43)	6.0 ± 1.0 (36)	6.7 ± 0.5* (60)		
Developmental delay	≥E9.5-E10.0 (21-29 s)	0.5 ± 0.5 (9.3%)	0.0	0.0		
	≥E8.5-E9.5 (8-20 s)	0.0	0.0	0.0		
	<E8.5 (<8 s)	0.0	0.0	0.0		
	Total	0.5 ± 0.5 (9.3%)	0.0	0.0		
Severe Abnormalities	Overall total		0.0	0.5 ± 0.2^a (8.3%)	1.0 ± 0.3** (15.0%)	
	>1 phenotype		0.0	0.3 ± 0.2* (5.6%)	0.6 ± 0.3^a (10.0%)	
	Placenta	Off-centered/no CA		0.0	0.3 ± 0.2 (5.6%)	0.2 ± 0.1 (3.3%)
		Necrotic placenta		0.0	0.0	0.2 ± 0.1 (3.3%)
		Total		0.0	0.3 ± 0.2 (5.6%)	0.4 ± 0.2 (6.6%)
	Heart	Pericardial edema		0.0	0.0	0.2 ± 0.1 (3.3%)
		Reversed looping		0.0	0.0	0.0
		Enlarged or abnormal structure		0.0	0.3 ± 0.2 (5.6%)	0.3 ± 0.2 (5.0%)
		Total		0.0	0.3 ± 0.2 (5.6%)	0.6 ± 0.3 (8.3%)
	Neural tube	Cranial NTD		0.0	0.0	0.0
		Spinal NTD		0.0	0.0	0.1 ± 0.1 (1.7%)
		Total		0.0	0.0	0.1 ± 0.1 (1.7%)
	Hemorrhages	Placenta		0.0	0.2 ± 0.2 (2.8%)	0.3 ± 0.2 (5.0%)
		Embryo		0.0	0.0	0.1 ± 0.1 (1.7%)
		Total		0.0	0.2 ± 0.2 (2.8%)	0.5 ± 0.3 (6.7%)
Reversed body looping		0.0	0.2 ± 0.2 (2.8%)	0.2 ± 0.1 (3.3%)		
Twins/Triplets		0.0	0.2 ± 0.2 (2.8%)	0.0		
Resorptions		1.1 ± 0.6 (20.9%)	0.7 ± 0.5 (11.1%)	0.1 ± 0.1* (1.7%)		



Generation analyzed: III III IV V III IV V

No. of MGMs or MGFs		3	7	3	2	3	3	2	
No. of litters (No. of conceptuses)		10 (93)	10 (83)	10 (91)	10 (99)	10 (89)	13 (111)	9 (86)	
Average conceptuses/litter		9.3±0.3	8.3±0.9	9.1±0.4	9.9±0.3	8.9±0.5	8.5±0.3	9.6±0.4	
Severe Abnormalities	Overall total	0.0	1.4±0.3** (17.1%)	0.5±0.2* (5.5%)	1.0±0.4** (10.1%)	1.0±0.2*** (12.4%)	0.4±0.1* (4.5%)	0.2±0.1 (2.3%)	
	>1 phenotype	0.0	0.5±0.2* (6.0%)	0.4±0.2 (4.4%)	0.8±0.2* (8.1%)	0.4±0.2* (4.5%)	0.3±0.1 (3.6%)	0.2±0.1 (2.3%)	
	Placenta	Off-centered CA	0.0	0.5±0.2* (7.3%)	0.5±0.2* (5.5%)	0.6±0.2* (6.1%)	0.2±0.1 (2.3%)	0.2±0.1 (1.8%)	0.1±0.1 (1.2%)
		No CA	0.0	0.3±0.2 (2.4%)	0.0	0.0	0.0	0.1±0.1 (0.1%)	0.0
		Total	0.0	0.8±0.3* (9.8%)	0.5±0.2* (5.5%)	0.6±0.2* (6.1%)	0.2±0.1 (2.3%)	0.2±0.1 (1.9%)	0.1±0.1 (1.2%)
	Heart	Pericardial edema	0.0	0.3±0.2* (2.4%)	0.3±0.2 (3.3%)	0.7±0.2* (7.1%)	0.3±0.2* (3.4%)	0.3±0.2 (3.6%)	0.2±0.1 (2.3%)
		Reversed looping	0.0	0.0	0.0	0.2±0.1 (2.0%)	0.0	0.0	0.0
		Enlarged heart	0.0	0.2±0.1 (3.7%)	0.1±0.1 (1.1%)	0.0	0.2±0.1 (2.3%)	0.2±0.2 (2.7%)	0.0
		Total	0.0	0.4±0.2* (6.1%)	0.4±0.2 (4.4%)	0.9±0.2* (9.1%)	0.4±0.2* (5.7%)	0.5±0.3 (6.3%)	0.2±0.1 (2.3%)
	Neural tube	Cranial NTD	0.0	0.1±0.1 (1.2%)	0.0	0.0	0.1±0.1 (1.1%)	0.1±0.1 (0.1%)	0.0
		Spinal NTD	0.0	0.2±0.1 (2.4%)	0.0	0.0	0.1±0.1 (1.1%)	0.0	0.0
		Total	0.0	0.3±0.2 (3.6%)	0.0	0.0	0.2±0.1 (2.2%)	0.1±0.1 (0.1%)	0.0
	Hemorrhages	Placenta	0.0	0.3±0.2 (3.6%)	0.1±0.1 (1.1%)	0.3±0.2 (3.0%)	0.1±0.1 (1.1%)	0.1±0.1 (0.1%)	0.1±0.1 (1.2%)
		Embryo	0.0	0.0	0.0	0.0	0.3±0.2 (3.4%)	0.0	0.0
		Total	0.0	0.3±0.2 (3.6%)	0.1±0.1 (1.1%)	0.3±0.2 (3.0%)	0.4±0.2* (4.5%)	0.1±0.1 (0.1%)	0.1±0.1 (1.2%)
Twins/Triples	0.0	0.1±0.1 (1.2%)	0.0	0.0	0.2±0.1 (2.2%)	0.1±0.1 (0.1%)	0.1±0.1 (1.2%)		
Resorptions	0.4±0.2 (4.3%)	0.9±0.4 (11.0%)	0.5±0.2 (5.5%)	0.2±0.1 (2.0%)	0.3±0.2 (3.4%)	0.6±0.1 (7.2%)	0.0		