Embryo-derived chemokine CXCL12 enhances pregnancy outcome via improvement of endometrial receptivity in mice

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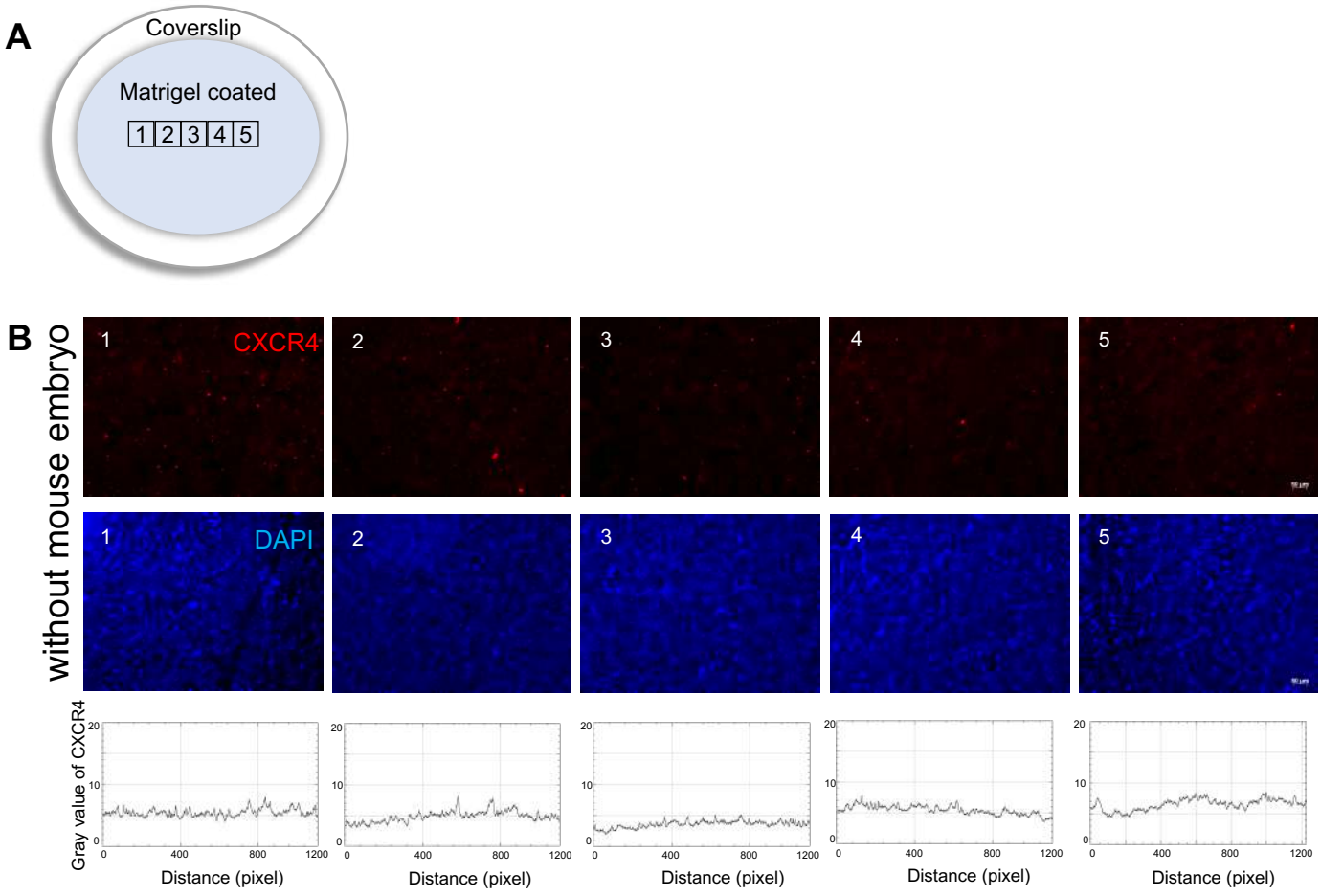
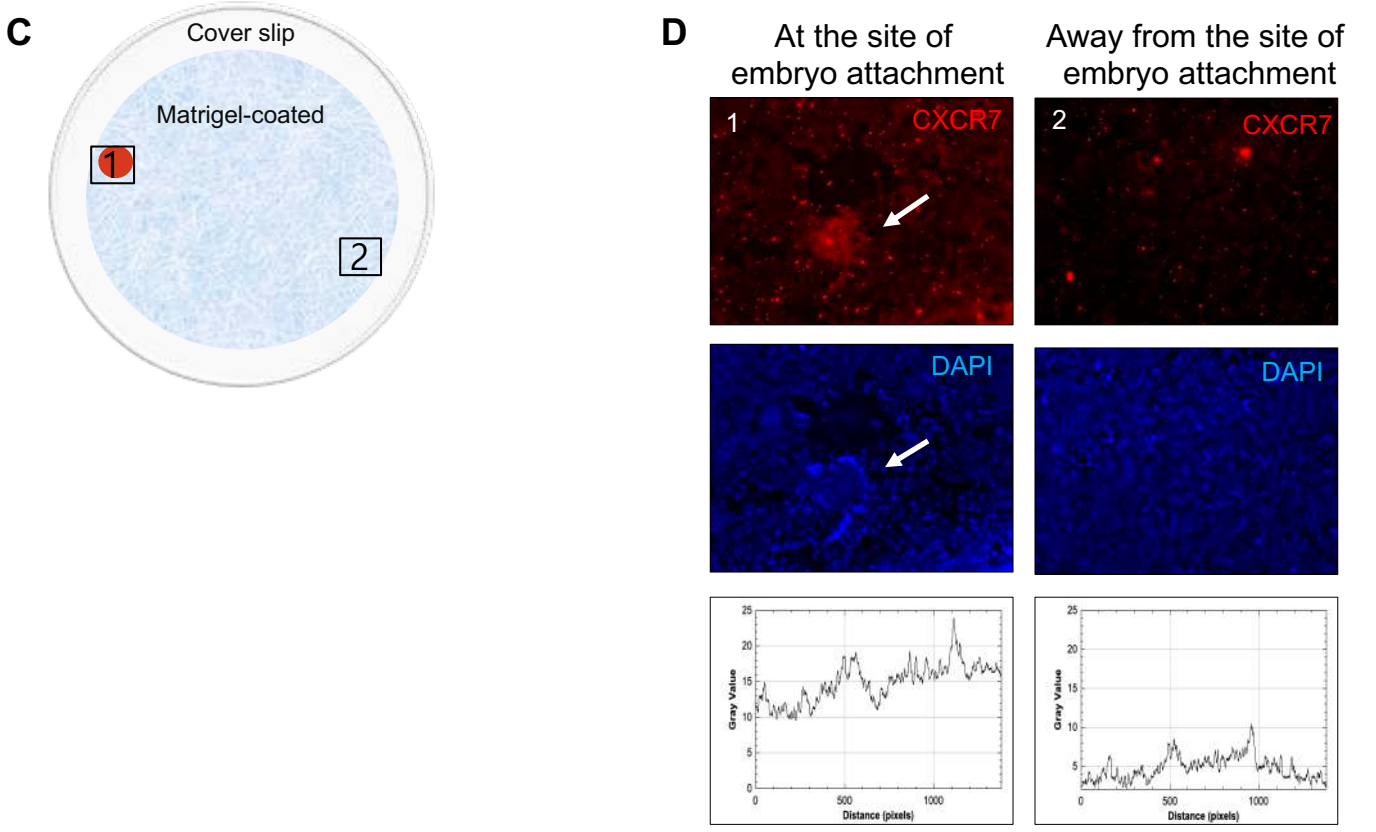
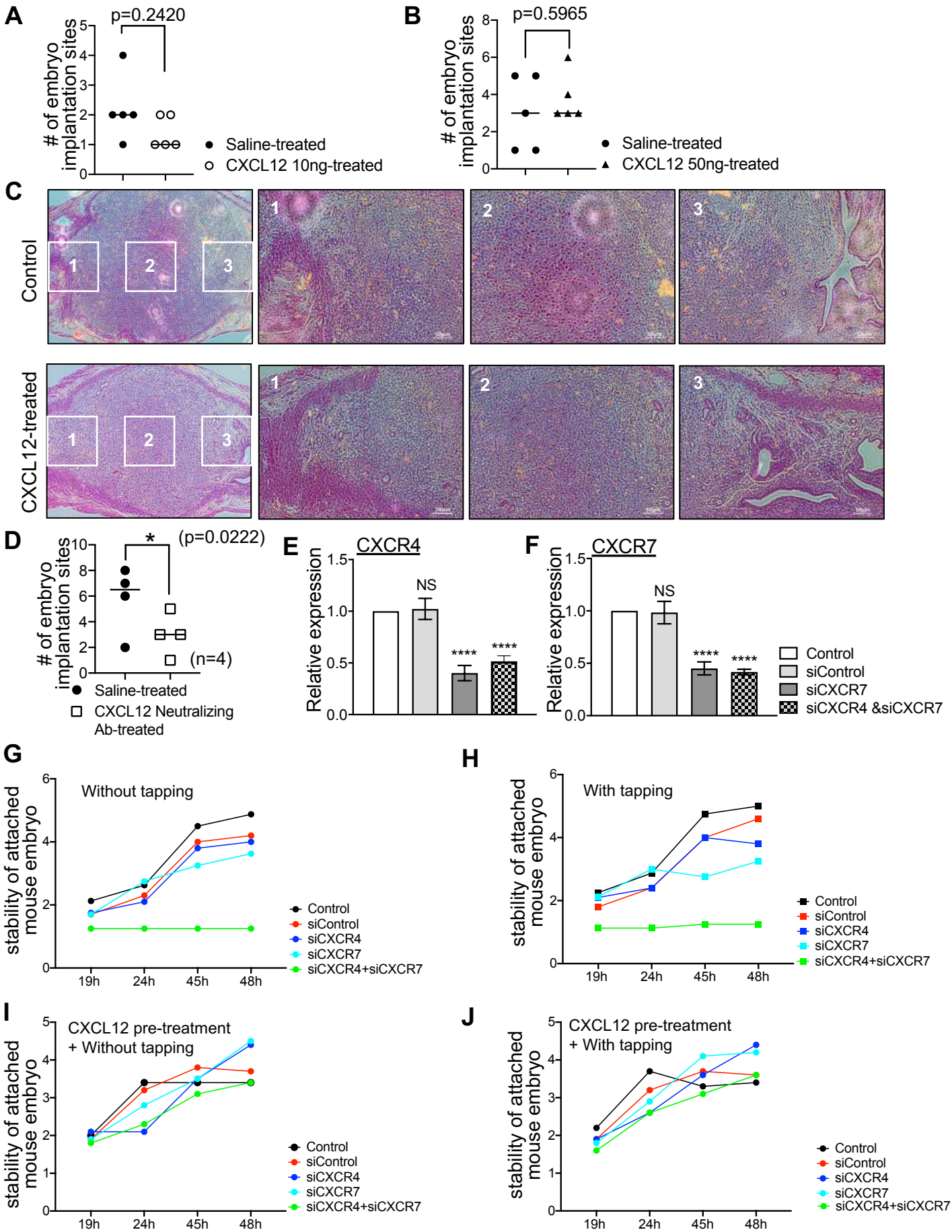
Supplementary Figure 1





Supplementary Figure 2



ITGB3	Forward	GCTCACCTTGTCCAGAAAC
	Reverse	CTGAGGAAAGGGAATTGTATG
LIF	Forward	ATTGTGCCCTTACTGCTGCTG
	Reverse	GCCAGTTGATTCTTGATCTGGT
Glycodelin	Forward	ACTTCGCCATCATGGACTTGG
	Reverse	CTGGTGCGATGCCTCTTCTG
CD31	Forward	GGTGCATGGCGTATCCAAG
	Reverse	TGGAGGTCTTATCTATCCTTCGC
CD34	Forward	CTTCCCCAACTGGCATACTGC
	Reverse	TCCAGAGCATTTGATTTCTCCC
VEGFR1	Forward	CACTGACATACCCAAACTTGTGC
	Reverse	GTCCCATGTTATTCTTTGCCCAT
VEGFR2	Forward	CAAACCTCAATGTGTCTCTTTGC
	Reverse	AGAGTAAAGCCTATCTCGCTGT
TIE1	Forward	GGTCACACACACGGTGAACAA
	Reverse	TGCCAGTCTAGGGTATTGAAGTA
TIE2	Forward	CTGGAGGTTACTCAAGATGTGAC
	Reverse	TCCGTATCCTTATAGCCTGTCC
ANG1	Forward	AAAATGGGTTTTGGGAATCCCT
	Reverse	TCGGCACCGTGTAAGATCAAG
ANG2	Forward	GGACAGTCATCCAACACCGAG
	Reverse	GACTCTTCACCAGCGAGGTAG

β-actin	Forward	CATGTACGTTGCTATCCAGGC
	Reverse	GCCTTAATGTCACGCACGAT

Supplementary Table 1. Primer sequence pairs used for RT-PCR analyses.

Gene		Source	CAT#	Sequences
On-Target plus SMART pool siRNA-human CXCR4	#1	Dharmacon Horizon Discovery, Lafayette, USA	J-005139-06	GAAGCAUGACGGACAAGUA
	#2	Dharmacon Horizon Discovery, Lafayette, USA	J-005139-07	GGCCUUAUCCUGCCUGGUA
	#3	Dharmacon Horizon Discovery, Lafayette, USA	J-005139-08	UAACUACACCGAGGAAAUG
	#4	Dharmacon Horizon Discovery, Lafayette, USA	J-005139-09	CAAGCAAGGGUGUGAGUUU
On-Target plus SMART pool siRNA-human CXCR7	#1	Dharmacon Horizon Discovery, Lafayette, USA	J-013212-10	GCCGUUCCCUUCUCCAUUA
	#2	Dharmacon Horizon Discovery, Lafayette, USA	J-013212-11	UACACGCUCUCCUUCAUUU
	#3	Dharmacon Horizon Discovery, Lafayette, USA	J-013212-12	GAGCUGGUCUCCGUUGUCU
	#4	Dharmacon Horizon Discovery, Lafayette, USA	J-013212-13	GCUCAUCGAUGCCUCCAGA

Supplementary Table 2. Sequences of siRNA.

Large category	Small category	Term	Term P-value
Biological process (BP)	Embryo implantation	GO:0001835~blastocyst hatching	2.97E-04
Biological process (BP)		GO:0007566~embryo implantation	8.30E-04
Biological process (BP)	Sprouting angiogenesis	GO:0002040~sprouting angiogenesis	4.85E-08
Biological process (BP)		GO:0002042~cell migration involved in sprouting angiogenesis	3.94E-07
Biological process (BP)		GO:0043534~blood vessel endothelial cell migration	1.93E-05
Biological process (BP)	Regulation of vasculature development	GO:0016525~negative regulation of angiogenesis	4.36E-08
Biological process (BP)		GO:0030947~regulation of vascular endothelial growth factor receptor signaling pathway	8.87E-05
Biological process (BP)		GO:0048010~vascular endothelial growth factor receptor signaling pathway	2.91E-04
Biological process (BP)		GO:1901342~regulation of vasculature development	9.17E-16
Biological process (BP)		GO:1901343~negative regulation of vasculature development	1.33E-10
Biological process (BP)		GO:2000181~negative regulation of blood vessel morphogenesis	5.12E-08
Biological process (BP)	Regulation of epidermal growth factor receptor signaling pathway	GO:0005006~epidermal growth factor-activated receptor activity	8.87E-05
Biological process (BP)		GO:0007173~epidermal growth factor receptor signaling pathway	7.89E-06
Biological process (BP)		GO:0038127~ERBB signaling pathway	1.29E-05
Biological process (BP)		GO:0042058~regulation of epidermal growth factor receptor signaling pathway	3.65E-05
Biological process (BP)		GO:0045742~positive regulation of epidermal growth factor receptor signaling pathway	7.33E-05
Biological process (BP)		GO:1901184~regulation of ERBB signaling pathway	4.77E-05
Biological process (BP)		GO:1901186~positive regulation of ERBB signaling pathway	8.87E-05
Biological process (BP)	Regulation of collagen metabolic process	GO:0003197~endocardial cushion development	2.41E-04
Biological process (BP)		GO:0010712~regulation of collagen metabolic process	4.70E-07
Biological process (BP)		GO:0032330~regulation of chondrocyte differentiation	3.88E-04
Biological process (BP)		GO:0032331~negative regulation of chondrocyte differentiation	2.93E-05
Biological process (BP)		GO:0061037~negative regulation of cartilage development	7.33E-05
Biological process (BP)	Regulation of muscle contraction	GO:0001990~regulation of systemic arterial blood pressure by hormone	2.91E-04
Biological process (BP)		GO:0001991~regulation of systemic arterial blood pressure by circulatory renin-angiotensin	1.36E-05
Biological process (BP)		GO:0003014~renal system process	7.64E-07
Biological process (BP)		GO:0003044~regulation of systemic arterial blood pressure mediated by a chemical signal	1.63E-05
Biological process (BP)		GO:0003071~renal system process involved in regulation of systemic arterial blood pressure	5.37E-05
Biological process (BP)		GO:0003073~regulation of systemic arterial blood pressure	1.11E-06
Biological process (BP)		GO:0003081~regulation of systemic arterial blood pressure by renin-angiotensin	1.06E-04
Biological process (BP)		GO:0003085~negative regulation of systemic arterial blood pressure	6.64E-05
Biological process (BP)		GO:0006937~regulation of muscle contraction	1.14E-08
Biological process (BP)		GO:0006939~smooth muscle contraction	5.37E-07
Biological process (BP)		GO:0006940~regulation of smooth muscle contraction	2.42E-08
Biological process (BP)		GO:0035150~regulation of tube size	3.17E-07

Biological process (BP)		GO:0035296~regulation of tube diameter	3.04E-07
Biological process (BP)		GO:0042311~vasodilation	1.25E-04
Biological process (BP)		GO:0044060~regulation of endocrine process	1.87E-05
Biological process (BP)		GO:0045776~negative regulation of blood pressure	2.57E-05
Biological process (BP)		GO:0045907~positive regulation of vasoconstriction	2.57E-04
Biological process (BP)		GO:0045933~positive regulation of muscle contraction	1.32E-05
Biological process (BP)		GO:0045987~positive regulation of smooth muscle contraction	2.65E-06
Biological process (BP)		GO:0061045~negative regulation of wound healing	5.28E-05
Biological process (BP)		GO:0097746~regulation of blood vessel diameter	3.04E-07
Biological process (BP)		GO:0097755~positive regulation of blood vessel diameter	1.37E-06
Biological process (BP)		GO:0098801~regulation of renal system process	4.45E-06
Biological process (BP)		GO:1900046~regulation of hemostasis	7.06E-05
Biological process (BP)		GO:1900047~negative regulation of hemostasis	3.47E-04
Biological process (BP)		GO:1903035~negative regulation of response to wounding	1.19E-04
Biological process (BP)		GO:1903524~positive regulation of blood circulation	5.06E-06
Cellular component (CC)		GO:0005901~caveola	1.04E-05
KEGG pathway	GnRH secretion	KEGG:04929~GnRH secretion	6.10E-04

Supplementary Table 3. Gene Ontology and pathway analysis of a network of gene-gene interaction among CXCL12-regulated genes constructed and visualized in Figure 3F.