

**Supplementary Table S1.** List of 42 cases of acute chorioamnionitis showing Cx43 and Cx40 expressions in various placental cell types and their perinatal outcomes.

No	Age	Race	Para	AG	Stages ACA MIR    FIR		Perinatal outcomes AS ≤3   IUD/ miscar   Prem   Lung riage            cx				Connexin 43												Connexin 40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
											A	U	U	C	C	S	S	C	S	M	D	A	U	U	C	C	S	S	C	S	M	D																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
											E	V	V	V	V	V	V	Y	Y	V	C	E	V	V	V	V	V	Y	Y	V	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
											C	E	S	E	S	E	S	T	N	E	C	E	S	E	S	E	S	T	N	E																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
											C	M	C	M	C	M		T	C	C	M	C	M	C	M		T	C																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

21	31	O	2-4	23	1	2	-	Yes	Yes	-	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
22	29	M	1	39	2	2	No	No	No	Yes	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
23	26	M	1	38	2	2	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	P	P	P	N	N	N	P	P	P	
24	27	M	2-4	32	2	2	No	No	No	Yes	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
25	28	M	1	38	2	2	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	N	P
26	29	M	1	38	2	2	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
27	39	C	1	39	2	2	No	No	No	Yes	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
28	32	C	1	30	3	2	No	No	No	Yes	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
29	30	M	2-4	40	3	2	No	No	No	Yes	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	N	P	P	P
30	31	C	1	39	3	2	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	P	N	N	N	P	P	P
31	33	M	1	16	3	2	-	Yes	Yes	-	N	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	P	N	N	N	P	P	P	
32	24	M	1	40	3	2	No	No	No	Yes	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	N	N	N	N	N	N	P	P	P
33	38	M	2-4	39	1	3	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	P	P	N	N	N	P	P	P
34	39	M	5+	36	2	3	No	No	Yes	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	P	N	N	N	P	P	P	
35	24	C	1	34	2	3	No	No	Yes	No	N	N	N	N	N	N	N	N	N	N	N	P	P	N	N	P	N	P	N	N	N	P	P	P
36	27	M	1	39	2	3	Yes	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	P	N	N	N	P	P	P	
37	26	M	1	40	3	3	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	P	P	N	N	N	P	P	P
38	26	M	1	39	3	3	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	N	N	N	N	N	N	P	N	P
39	33	M	2-4	40	3	3	No	No	No	No	N	N	N	N	N	N	N	N	N	N	N	P	P	P	N	N	N	N	N	N	N	P	N	P

Para– parity, GA– gestational age, ACA– acute chorioamnionitis, MIR– maternal inflammatory response, FIR– foetal inflammatory response, AS– Apgar score, IUD– intrauterine death, Prem– prematurity, Lungcx– lung complications, AEC– amnion epithelial cells, UVEC– umbilical vessels endothelial cells, UVSMC– umbilical vessels smooth muscle cells, CVEC– chorionic vessels endothelial cells, CVSMC– chorionic vessels smooth muscle cells, SVEC– stem vessels endothelial cells, SVSMC– stem vessels smooth muscle cells, CYT– cytotrophoblasts, SYNT– syncytiotrophoblasts, MVEC– maternal vessels endothelial cells, DC– decidual cells, M–Malay, C– Chinese, I– Indian, O– others, N– negative, P– positive.

**Supplementary Table S2.** List of 42 cases of non-acute chorioamnionitis showing Cx43 and Cx40 expressions in various placental cell types.

No.	Age	Race	Para	GA	Connexin 43												Connexin 40											
					AE	UV	UV	CV	CV	SV	SV	CY	SY	MV	DC		AE	UV	UV	CV	CV	SV	SV	CY	SY	M	DC	
					C	EC	SM	EC	SM	EC	SM	T	NT	EC		C	EC	SM	EC	SM	EC	SM	T	NT	VE			
						C		C		C								C		C		C				C		
1	32	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	N	N	N	N	P	N	P	
2	38	CHINESE	2-4	38	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	P	N	N	N	P	N	P	
3	31	MALAY	2-4	40	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	P	P	
4	30	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	N	N	N	N	P	P	P	
5	38	MALAY	5+	38	N	N	N	N	N	N	N	N	N	N	P		P	P	N	N	N	N	N	N	P	N	P	
6	29	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	N	N	N	N	P	P	P	
7	31	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	N	P	
8	38	MALAY	5+	38	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	P	P	
9	32	OTHERS	2-4	35	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	N	N	N	N	P	P	P	
10	32	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	P	P	
11	27	INDIAN	1	38	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	N	N	N	N	P	P	P	
12	29	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P		N	P	N	P	P	N	N	N	P	N	P	
13	26	MALAY	2-4	35	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	N	P	
14	30	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P		N	P	N	P	N	N	N	N	P	N	P	
15	31	CHINESE	2-4	39	N	N	N	N	N	N	N	N	N	N	P		P	N	N	N	N	N	N	N	P	P	P	
16	27	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	P	P	
17	22	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	N	P	
18	33	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P		P	N	N	N	N	N	N	N	P	N	P	
19	31	MALAY	1	37	N	N	N	N	N	N	N	N	N	N	P		P	P	N	N	N	N	N	N	P	N	P	
20	27	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	P	P	
21	34	OTHERS	2-4	36	N	N	N	N	N	N	N	N	N	N	P		N	N	N	N	N	N	N	N	P	N	P	
22	29	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P		N	P	N	P	N	N	N	N	P	P	P	
23	27	CHINESE	2-4	32	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	N	P	
24	34	CHINESE	2-4	39	N	N	N	N	N	N	N	N	N	N	P		P	P	N	P	N	N	N	N	P	P	P	
25	37	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P		P	P	P	P	N	N	N	N	P	P	P	

26	34	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	N	N	N	P	P	P	
27	30	OTHERS	5+	40	N	N	N	N	N	N	N	N	N	N	P	N	P	P	P	N	N	N	N	P	P	P
28	31	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
29	24	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	N	N	N	P	P	P	
30	29	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P	N	P	N	P	N	N	N	N	P	P	P
31	31	MALAY	2-4	39	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
32	35	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
33	38	MALAY	2-4	36	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
34	38	MALAY	5+	37	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
35	31	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	N	P
36	35	MALAY	2-4	38	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	N	P
37	31	MALAY	2-4	40	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
38	28	MALAY	1	38	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
39	37	MALAY	5+	38	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	N	N	N	P	P	P
40	33	MALAY	2-4	37	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	P	N	N	N	P	P	P
41	27	MALAY	1	40	N	N	N	N	N	N	N	N	N	N	P	P	P	P	N	N	N	N	N	P	P	P
42	26	MALAY	1	39	N	N	N	N	N	N	N	N	N	N	P	P	P	N	P	N	P	N	N	P	P	P

Para– parity, GA– gestational age, AEC– amnion epithelial cells, UVEC– umbilical vessels endothelial cells, UVSMC– umbilical vessels smooth muscle cells, CVEC– chorionic vessels endothelial cells, CVSMC– chorionic vessels smooth muscle cells, SVEC– stem vessels endothelial cells, SVSMC– stem vessels smooth muscle cells, CYT– cytotrophoblasts, SYNT– syncytiotrophoblasts, MVEC– maternal vessels endothelial cells, DC– decidual cells, N– negative, P– positive.

