

Table S1. Datasets of maternal-fetal interface transcriptome for the associated factors and the subtypes.

Tissue/condition	Sample size (n=eligible/original)			
Discovery sets, the associated factors				
Endometrium	GSE4888 (n=15/27)	GSE6364 (n=13/37)	Total	
Proliferative (PRE)	2	2	4	
Early secretory (ESE)	2	3	5	
Mid secretory (MSE)	8	8	16	
Late secretory (LSE)	3	0	3	
Decidua	EMTAB680 (n=21/24)		Total	
Ectopic, non-decidualized (EPND)	5		5	
Ectopic, intermediate-decidualized (EPID)	6		6	
Intrauterine, intermediate-decidualized (IPID)	5		5	
Intrauterine, confluent-decidualized (IPCD)	5		5	
Placenta	GSE12767 (n=8/12)	GSE9984 (n=10/12)	Total	
First trimester (T1)	8	4	12	
Second trimester (T2)	0	3	3	
Term (TE)	0	3	3	
Placenta	GSE75010* (n=103/109)	GSE98224 (n=43/48)	Total	
Second trimester, non-chorioamnionitis (NC2)	3	1	4	
Second trimester, chorioamnionitis (CHOR2)	4	0	4	
Third trimester, non-chorioamnionitis (NC3)	85	42	127	
Third trimester, chorioamnionitis (CHOR3)	11	0	11	
Placenta	GSE75010* (n=103/109)	GSE98224 (n=43/48)	Total	
Second trimester, non-HELLP (NH2)	5	0	5	
Second trimester, HELLP (HELLP2)	2	1	3	
Third trimester, non-HELLP (NH3)	81	38	119	
Third trimester, HELLP (HELLP3)	15	4	19	

Condition	Sample size (n=eligible/original)			Total
	GSE75010* (n=83/109)	GSE98224 (n=39/48)	GSE100415 (n=17/20)	
Discovery sets, associated factors				
Control				
Normotensive pregnancy	12	6	0	18
Isolated PE				
Early-onset, mild-to-moderate (EOMPE) †	0	1	0	1
Late-onset, mild-to-moderate (LOMPE) †	2	0	0	2
Early-onset, severe (EOSPE)	12	3	0	15
Late-onset, severe (LOSPE)	4	3	0	7
PE with fetal growth restriction				
Early-onset, mild-to-moderate (EOMPE-FGR)	3	1	0	4
Late-onset, mild-to-moderate (LOMPE-FGR)	1	2	0	3
Early-onset, severe (EOSPE-FGR)	7	4	0	11
Late-onset, severe (LOSPE-FGR)	4	3	0	7
Superimposed PE				
Late-onset, mild-to-moderate (SIM-LOMPE)	2	1	0	3
Early-onset, severe (SIM-EOSPE)	6	3	0	9
Late-onset, severe (SIM-LOSPE) †	0	2	0	2
Superimposed PE with fetal growth restriction				
Late-onset, mild-to-moderate (SIM-LOMPE-FGR) †	0	1	0	1
Early-onset, severe (SIM-EOSPE-FGR)	3	3	0	6
Late-onset, severe (SIM-LOSPE-FGR) †	2	0	0	2
Gestational hypertension				
Early-onset (EGH)	5	1	0	6
Late-onset (LGH)	4	1	0	5
Gestational hypertension with fetal growth restriction				
Late-onset (LGH-FGR)	0	0	6	6
Chronic hypertension				
Early-onset (ECH) †	1	0	0	1
Late-onset (LCH)	5	0	0	5
Chronic hypertension with fetal growth restriction				
Early-onset (ECH-FGR)	4	4	0	8
Late-onset (LCH-FGR)	6	0	0	6
Isolated fetal growth restriction				
Late-onset (LFGR)	0	0	11	11

Condition	Sample size ( <i>n</i> =eligible/original)							Total
	GSE30186 ( <i>n</i> =9/12)	GSE10588 ( <i>n</i> =39/43)	GSE24129 ( <i>n</i> =19/24)	GSE25906 ( <i>n</i> =31/60)	GSE4707 ( <i>n</i> =4/14)	GSE44711 ( <i>n</i> =7/16)	GSE128381 ( <i>n</i> =166/183)	
<i>Validation sets, the subtypes</i>								
<i>Control</i>								
Normotensive pregnancy	6	23	8	27	4	6	155	229
<i>Isolated PE</i>								
Early-onset, severe (EOSPE) †	0	0	1	0	0	1	0	2
Late-onset, severe (LOSPE)	1	5	4	0	0	0	0	10
<i>PE with fetal growth restriction</i>								
Late-onset, mild-to-moderate (LOMPE-FGR) †	1	0	0	0	0	0	0	1
Early-onset, severe (EOSPE-FGR)	0	5	0	0	0	0	0	5
Late-onset, severe (LOSPE-FGR)	1	5	0	0	0	0	0	6
<i>Gestational hypertension</i>								
Late-onset (LGH)	0	0	0	0	0	0	8	8
<i>Isolated fetal growth restriction</i>								
Late-onset (LFGR)	0	1	6	4	0	0	3	14

\*, excluding the samples that overlap with those of GSE98224; †, ineligible due to small sample size; PE, preeclampsia.

Table S2. List of samples in discovery and validation datasets for the associated factors and the subtypes.

Variable	Set	Tissue	Description	Series	Samples
Associated factor	Discovery set	Endometrium	Proliferative (PRE)	GSE4888	GSM109814, GSM109815
				GSE6364	GSM150198, GSM150201
			Early secretory (ESE)	GSE4888	GSM109820, GSM109821
				GSE6364	GSM150208, GSM150209, GSM150210
			Mid secretory (MSE)	GSE4888	GSM109824, GSM109825, GSM109826, GSM109827, GSM109828, GSM109829, GSM109830, GSM109831
				GSE6364	GSM150220, GSM150221, GSM150222, GSM150223, GSM150224, GSM150225, GSM150226, GSM150227
			Late secretory (LSE)	GSE4888	GSM109836, GSM109838, GSM109839
			Ectopic, non-decidualized (EPND)	EMTAB680	3-12.CEL, 3-13.CEL, 3-4.CEL, 3-5.CEL, 3-9.CEL
			Ectopic, intermediate-decidualized (EPID)	EMTAB680	3-1.CEL, 3-10.CEL, 3-11.CEL, 3-3.CEL, 3-6.CEL, 3-7.CEL
			Intrauterine, intermediate-decidualized (IPID)	EMTAB680	1-6.CEL, 2-2.CEL, 2-3.CEL, 2-8.CEL, 2-9.CEL
			Intrauterine, confluent-decidualized (IPCD)	EMTAB680	1-2.CEL, 1-4.CEL, 2-1.CEL, 2-12.CEL, 2-7.CEL
		Placenta	First trimester (T1)	GSE12767	GSM320282, GSM320285, GSM320286, GSM320287, GSM320289, GSM320290, GSM320291, GSM320293
				GSE9984	GSM252349, GSM252350, GSM252351, GSM252352
			Second trimester (T1)	GSE9984	GSM252353, GSM252354, GSM252355
			Term (TE)	GSE9984	GSM252357, GSM252358, GSM252359
		Placenta	Second trimester, non-chorioamnionitis (NC2)	GSE75010	GSM1940562, GSM1940568, GSM1940620
				GSE98224	GSM1940589
			Second trimester, chorioamnionitis (CHOR2)	GSE75010	GSM1940538, GSM1940585, GSM1940588, GSM1940605
			Third trimester, non-chorioamnionitis (NC3)	GSE75010	GSM1940492, GSM1940493, GSM1940494, GSM1940497, GSM1940498, GSM1940503, GSM1940504, GSM1940510, GSM1940512, GSM1940514, GSM1940515, GSM1940516, GSM1940521, GSM1940523, GSM1940525, GSM1940528, GSM1940530, GSM1940531, GSM1940532, GSM1940533, GSM1940536, GSM1940537, GSM1940540, GSM1940541, GSM1940543, GSM1940546, GSM1940550, GSM1940551, GSM1940552, GSM1940554, GSM1940555, GSM1940557, GSM1940558, GSM1940560, GSM1940561, GSM1940563, GSM1940564, GSM1940565, GSM1940566, GSM1940567, GSM1940570, GSM1940571, GSM1940572, GSM1940573, GSM1940574, GSM1940575, GSM1940577, GSM1940578, GSM1940579, GSM1940580, GSM1940584, GSM1940590, GSM1940591, GSM1940592, GSM1940595, GSM1940596, GSM1940597, GSM1940598, GSM1940599, GSM1940600, GSM1940604, GSM1940610, GSM1940611, GSM1940612, GSM1940613, GSM1940615, GSM1940616, GSM1940617, GSM1940619, GSM1940624, GSM1940627, GSM1940628, GSM1940629, GSM1940631, GSM1940632, GSM1940633, GSM1940634, GSM1940635, GSM1940637, GSM1940639, GSM1940640, GSM1940641, GSM1940643, GSM1940646, GSM1940648
				GSE98224	GSM1940495, GSM1940496, GSM1940499, GSM1940500, GSM1940501, GSM1940502, GSM1940505, GSM1940506, GSM1940507, GSM1940508, GSM1940509, GSM1940518,

Variable	Set	Tissue	Description	Series	Samples
		Placenta	Third trimester, chorioamnionitis (CHOR3)	GSE75010	GSM1940520, GSM1940524, GSM1940534, GSM1940535, GSM1940542, GSM1940545, GSM1940548, GSM1940549, GSM1940553, GSM1940582, GSM1940583, GSM1940586, GSM1940593, GSM1940594, GSM1940602, GSM1940603, GSM1940606, GSM1940608, GSM1940614, GSM1940618, GSM1940621, GSM1940622, GSM1940623, GSM1940625, GSM1940626, GSM1940630, GSM1940638, GSM1940642, GSM1940644, GSM1940645
					GSM1940511, GSM1940513, GSM1940517, GSM1940529, GSM1940539, GSM1940544, GSM1940581, GSM1940587, GSM1940601, GSM1940609, GSM1940647
					GSM1940538, GSM1940568, GSM1940585, GSM1940588, GSM1940605
					GSM1940562, GSM1940620
					GSM1940589
					GSM1940492, GSM1940493, GSM1940494, GSM1940497, GSM1940503, GSM1940504, GSM1940510, GSM1940511, GSM1940512, GSM1940513, GSM1940514, GSM1940515, GSM1940516, GSM1940517, GSM1940521, GSM1940523, GSM1940525, GSM1940528, GSM1940529, GSM1940530, GSM1940531, GSM1940532, GSM1940533, GSM1940536, GSM1940537, GSM1940539, GSM1940540, GSM1940541, GSM1940543, GSM1940544, GSM1940546, GSM1940550, GSM1940551, GSM1940554, GSM1940555, GSM1940557, GSM1940560, GSM1940561, GSM1940563, GSM1940566, GSM1940567, GSM1940570, GSM1940571, GSM1940574, GSM1940575, GSM1940578, GSM1940579, GSM1940580, GSM1940581, GSM1940584, GSM1940587, GSM1940590, GSM1940591, GSM1940592, GSM1940595, GSM1940596, GSM1940597, GSM1940598, GSM1940600, GSM1940601, GSM1940609, GSM1940610, GSM1940611, GSM1940613, GSM1940615, GSM1940619, GSM1940624, GSM1940627, GSM1940628, GSM1940629, GSM1940631, GSM1940634, GSM1940635, GSM1940637, GSM1940639, GSM1940640, GSM1940641, GSM1940643, GSM1940646, GSM1940647, GSM1940648
					GSM1940495, GSM1940496, GSM1940499, GSM1940500, GSM1940501, GSM1940502, GSM1940506, GSM1940507, GSM1940509, GSM1940518, GSM1940524, GSM1940534, GSM1940535, GSM1940542, GSM1940545, GSM1940548, GSM1940549, GSM1940553, GSM1940582, GSM1940583, GSM1940586, GSM1940594, GSM1940602, GSM1940603, GSM1940606, GSM1940608, GSM1940614, GSM1940618, GSM1940621, GSM1940622, GSM1940623, GSM1940625, GSM1940626, GSM1940630, GSM1940638, GSM1940642, GSM1940644, GSM1940645
					GSM1940498, GSM1940552, GSM1940558, GSM1940564, GSM1940565, GSM1940572, GSM1940573, GSM1940577, GSM1940599, GSM1940604, GSM1940612, GSM1940616, GSM1940617, GSM1940632, GSM1940633
					GSM1940505, GSM1940508, GSM1940520, GSM1940593
					GSM1940503, GSM1940531, GSM1940532, GSM1940533, GSM1940551, GSM1940555,
Subtype	Discovery set	Placenta	Third trimester, HELLP (HELLP3)	GSE75010	
				GSE98224	

Variable	Set	Tissue	Description	Series	Samples
			Control, normotensive pregnancy	GSE98224	GSM1940615, GSM1940627, GSM1940629, GSM1940637, GSM1940640, GSM1940643
			Isolated preeclampsia, early-onset, mild-to-moderate (EOMPE)	GSE98224	GSM1940545, GSM1940608, GSM1940621, GSM1940622, GSM1940623, GSM1940638
			Isolated preeclampsia, late-onset, mild-to-moderate (LOMPE)	GSE75010	GSM1940501
			Isolated preeclampsia, early-onset, severe (EOSPE)	GSE75010	GSM1940560, GSM1940647
			Isolated preeclampsia, late-onset, severe (LOSPE)	GSE75010	GSM1940504, GSM1940515, GSM1940521, GSM1940540, GSM1940558, GSM1940574, GSM1940596, GSM1940611, GSM1940612, GSM1940617, GSM1940632, GSM1940648
			Preeclampsia with fetal growth restriction, early-onset, mild-to-moderate (EOMPE-FGR)	GSE98224	GSM1940593, GSM1940602, GSM1940644
			Preeclampsia with fetal growth restriction, late-onset, mild-to-moderate (LOMPE-FGR)	GSE75010	GSM1940525, GSM1940564, GSM1940565, GSM1940631
			Preeclampsia with fetal growth restriction, early-onset, severe (EOSPE-FGR)	GSE98224	GSM1940495, GSM1940502, GSM1940534
			Preeclampsia with fetal growth restriction, late-onset, severe (LOSPE-FGR)	GSE75010	GSM1940512, GSM1940537, GSM1940546
			Superimposed preeclampsia, late-onset, mild-to-moderate (LOMPE)	GSE98224	GSM1940553
			Superimposed preeclampsia, early-onset, severe (EOSPE)	GSE75010	GSM1940528
			Superimposed preeclampsia, late-onset, severe (LOSPE)	GSE98224	GSM1940535, GSM1940582
			Superimposed preeclampsia with fetal growth restriction, late-onset, mild-to-moderate (LOMPE-FGR)	GSE75010	GSM1940514, GSM1940550, GSM1940552, GSM1940584, GSM1940590, GSM1940604, GSM1940616
			Superimposed preeclampsia with fetal growth restriction, early-onset, severe (EOSPE-FGR)	GSE98224	GSM1940505, GSM1940520, GSM1940542, GSM1940625
			Superimposed preeclampsia with fetal growth restriction, late-onset, severe (LOSPE-FGR)	GSE75010	GSM1940492, GSM1940567, GSM1940573, GSM1940641
			Superimposed preeclampsia, late-onset, mild-to-moderate (LOMPE)	GSE98224	GSM1940506, GSM1940518, GSM1940603
			Superimposed preeclampsia, early-onset, severe (EOSPE)	GSE75010	GSM1940510, GSM1940619
			Superimposed preeclampsia, late-onset, severe (LOSPE)	GSE98224	GSM1940606
			Superimposed preeclampsia with fetal growth restriction, late-onset, mild-to-moderate (LOMPE-FGR)	GSE75010	GSM1940498, GSM1940571, GSM1940572, GSM1940577, GSM1940599, GSM1940633
			Superimposed preeclampsia with fetal growth restriction, early-onset, severe (EOSPE-FGR)	GSE98224	GSM1940508, GSM1940549, GSM1940626
			Superimposed preeclampsia with fetal growth restriction, late-onset, severe (LOSPE-FGR)	GSE98224	GSM1940509, GSM1940614
			Superimposed preeclampsia with fetal growth restriction, late-onset, mild-to-moderate (LOMPE-FGR)	GSE75010	GSM1940530, GSM1940541, GSM1940635
			Superimposed preeclampsia with fetal growth restriction, early-onset, severe (EOSPE-FGR)	GSE98224	GSM1940496, GSM1940500, GSM1940583

Variable	Set	Tissue	Description	Series	Samples
			Superimposed preeclampsia with fetal growth restriction, late-onset, severe (LOSPE-FGR)	GSE75010	GSM1940592, GSM1940610
			Gestational hypertension, early-onset (EGH)	GSE75010	GSM1940517, GSM1940536, GSM1940544, GSM1940570, GSM1940609
			Gestational hypertension, late-onset (LGH)	GSE98224	GSM1940524
			Gestational hypertension with fetal growth restriction, late-onset (LGH-FGR)	GSE75010	GSM1940497, GSM1940613, GSM1940639, GSM1940646
				GSE98224	GSM1940618
				GSE100415	GSM2680543, GSM2680544, GSM2680547, GSM2680552, GSM2680555, GSM2680559
			Chronic hypertension, early-onset (ECH)	GSE75010	GSM1940579
			Chronic hypertension, late-onset (LCH)	GSE75010	GSM1940493, GSM1940494, GSM1940575, GSM1940578, GSM1940580
			Chronic hypertension with fetal growth restriction, early-onset (ECH-FGR)	GSE75010	GSM1940591, GSM1940597, GSM1940598, GSM1940624
			Chronic hypertension with fetal growth restriction, late-onset (LCH-FGR)	GSE98224	GSM1940586, GSM1940594, GSM1940630, GSM1940642
				GSE75010	GSM1940523, GSM1940543, GSM1940566, GSM1940595, GSM1940600, GSM1940628
			Isolated fetal growth restriction, late-onset (LFGR)	GSE100415	GSM2680540, GSM2680541, GSM2680542, GSM2680545, GSM2680546, GSM2680549, GSM2680553, GSM2680554, GSM2680556, GSM2680557, GSM2680558
	Validation set	Placenta	Control, normotensive pregnancy	GSE30186	GSM747304, GSM747305, GSM747306, GSM747307, GSM747308, GSM747309
				GSE10588	GSM225470, GSM225471, GSM225472, GSM225473, GSM225474, GSM225475, GSM225476, GSM225477, GSM225478, GSM225479, GSM225480, GSM225484, GSM225485, GSM225486, GSM225488, GSM225489, GSM225490, GSM225491, GSM225492, GSM225493, GSM225494, GSM225496, GSM225497
				GSE24129	GSM594041, GSM594042, GSM594043, GSM594044, GSM594045, GSM594046, GSM594047, GSM594048
				GSE25906	GSM635909, GSM635910, GSM635913, GSM635917, GSM635918, GSM635919, GSM635921, GSM635925, GSM635929, GSM635931, GSM635932, GSM635934, GSM635936, GSM635938, GSM635939, GSM635941, GSM635942, GSM635944, GSM635946, GSM635949, GSM635952, GSM635954, GSM635955, GSM635956, GSM635958, GSM635959, GSM635963
				GSE4707	GSM106249, GSM106250, GSM106274, GSM106275
				GSE44711	GSM1089237, GSM1089238, GSM1089239, GSM1089241, GSM1089243, GSM1089244
				GSE128381	GSM3673224, GSM3673225, GSM3673226, GSM3673227, GSM3673228, GSM3673229, GSM3673230, GSM3673232, GSM3673233, GSM3673234, GSM3673235, GSM3673236, GSM3673237, GSM3673239, GSM3673241, GSM3673242, GSM3673243, GSM3673244, GSM3673245, GSM3673246, GSM3673247, GSM3673248, GSM3673250, GSM3673251, GSM3673252, GSM3673253, GSM3673254, GSM3673255, GSM3673257, GSM3673259, GSM3673261, GSM3673262, GSM3673263, GSM3673264, GSM3673265, GSM3673268,

Variable	Set	Tissue	Description	Series	Samples
					GSM3673270, GSM3673271, GSM3673272, GSM3673273, GSM3673274, GSM3673275, GSM3673277, GSM3673278, GSM3673279, GSM3673280, GSM3673282, GSM3673283, GSM3673284, GSM3673285, GSM3673289, GSM3673290, GSM3673291, GSM3673292, GSM3673293, GSM3673294, GSM3673295, GSM3673296, GSM3673297, GSM3673298, GSM3673299, GSM3673300, GSM3673301, GSM3673302, GSM3673303, GSM3673304, GSM3673306, GSM3673307, GSM3673309, GSM3673310, GSM3673311, GSM3673313, GSM3673315, GSM3673317, GSM3673318, GSM3673319, GSM3673320, GSM3673321, GSM3673322, GSM3673323, GSM3673324, GSM3673326, GSM3673327, GSM3673328, GSM3673331, GSM3673332, GSM3673333, GSM3673334, GSM3673335, GSM3673336, GSM3673338, GSM3673339, GSM3673340, GSM3673341, GSM3673342, GSM3673343, GSM3673344, GSM3673345, GSM3673346, GSM3673347, GSM3673348, GSM3673349, GSM3673350, GSM3673351, GSM3673352, GSM3673353, GSM3673354, GSM3673355, GSM3673356, GSM3673357, GSM3673358, GSM3673359, GSM3673360, GSM3673361, GSM3673363, GSM3673364, GSM3673366, GSM3673367, GSM3673368, GSM3673369, GSM3673372, GSM3673373, GSM3673374, GSM3673375, GSM3673376, GSM3673377, GSM3673378, GSM3673379, GSM3673380, GSM3673381, GSM3673382, GSM3673383, GSM3673384, GSM3673385, GSM3673386, GSM3673387, GSM3673388, GSM3673389, GSM3673390, GSM3673391, GSM3673392, GSM3673393, GSM3673394, GSM3673395, GSM3673396, GSM3673397, GSM3673398, GSM3673399, GSM3673400, GSM3673401, GSM3673402, GSM3673403, GSM3673404, GSM3673405, GSM3673406
			Isolated preeclampsia, early-onset, severe (EOSPE)	GSE24129 GSE44711	GSM594060 GSM1089236
			Isolated preeclampsia, late-onset, severe (LOSPPE)	GSE30186 GSE10588	GSM747298 GSM225498, GSM225507, GSM225509, GSM225512, GSM225513
			Preeclampsia with fetal growth restriction, late-onset, mild-to-moderate (LOMPE-FGR)	GSE24129 GSE30186	GSM594057, GSM594059, GSM594061, GSM594063 GSM747303
			Preeclampsia with fetal growth restriction, early-onset, severe (EOSPE-FGR)	GSE10588	GSM225481, GSM225500, GSM225508, GSM225510, GSM225511
			Preeclampsia with fetal growth restriction, late-onset, severe (LOSPPE-FGR)	GSE30186 GSE10588	GSM747299 GSM225499, GSM225502, GSM225504, GSM225505, GSM225506
			Gestational hypertension, late-onset (LGH)	GSE128381 GSE10588	GSM3673240, GSM3673256, GSM3673267, GSM3673269, GSM3673286, GSM3673288, GSM3673329, GSM3673365 GSM225487

Variable	Set	Tissue	Description	Series	Samples
			Isolated fetal growth restriction, late-onset (LFGR)	GSE24129	GSM594050, GSM594051, GSM594053, GSM594054, GSM594055, GSM594056
				GSE25906	GSM635916, GSM635924, GSM635935, GSM635950
				GSE128381	GSM3673238, GSM3673266, GSM3673325



Table S3. Phenotype characteristics of discovery sets of maternal-fetal interface transcriptome for the associated factors.

Tissue*	Variable	Value	Event	Nonevent
Endometrium	Condition	Control	<i>ESE</i>	<i>PRE</i>
		Leiomyomata (SCH) Celexa	3/5 (60%)	3/4 (75%)
		Leiomyomata (TAH)	1/5 (20%)	0/4 (0%)
			1/5 (20%)	1/4 (25%)
Endometrium	Condition	Control	<i>MSE</i>	<i>PRE</i>
		Leiomyomata (LAVH no endometriosis)	12/16 (75%)	3/4 (75%)
		Leiomyomata (TAH)	1/16 (6.2%)	0/4 (0%)
		Pelvic pain, no endometriosis at laparoscopy (TVH/TAH)	0/16 (0%)	1/4 (25%)
		Uterine prolapse (TVH) Allegra, Advil	1/16 (6.2%)	0/4 (0%)
		Uterine prolapse, stress urinary incontinence (TVH)	1/16 (6.2%)	0/4 (0%)
Endometrium	Condition	Control	<i>LSE</i>	<i>PRE</i>
		Leiomyomata (TAH)	0/3 (0%)	3/4 (75%)
		Uterine prolapse, other (TVH) Detrol LA	2/3 (67%)	1/4 (25%)
			1/3 (33%)	0/4 (0%)
Placenta†	Gestational age	(weeks)	<i>TI</i>	<i>TE</i>
			8.43 ± 0 (n=12; outlier=0; missing=8)	41 ± 0 (n=3; outlier=0; missing=0)
Placenta†	Gestational age	(weeks)	<i>T2</i>	<i>TE</i>
			16.43 ± 0 (n=3; outlier=0; missing=0)	41 ± 0 (n=3; outlier=0; missing=0)
Placenta	Attempted vaginal delivery	No	<i>CHOR2</i>	<i>NC2</i>
		Yes	0/4 (100%)	4/4 (100%)
	Delivery	C-Section	4/4 (100%)	0/4 (100%)
		Vaginal	2/4 (50%)	4/4 (100%)
	Gestational age	(weeks)	2/4 (50%)	0/4 (100%)
			26.21 ± 0.3 (n=4; outlier=0; missing=0)	26.36 ± 0.59 (n=4; outlier=0; missing=0)
	HELLP	No	4/4 (100%)	1/4 (25%)
		Yes	0/4 (0%)	3/4 (75%)
	FGR	No	4/4 (100%)	4/4 (100%)
		Yes	0/4 (0%)	0/4 (0%)
	Max. DBP during pregnancy	(mm Hg)	73.75 ± 13.67 (n=4; outlier=0; missing=0)	104.5 ± 9.26 (n=4; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	131.75 ± 10.31 (n=4; outlier=0; missing=0)	170.5 ± 20.29 (n=4; outlier=0; missing=0)
	Newborn weight	(Z-score)	-0.1 ± 0.93 (n=4; outlier=0; missing=0)	-0.88 ± 0.06 (n=4; outlier=0; missing=0)
	PE	No	4/4 (100%)	1/4 (25%)
		Yes	0/4 (0%)	3/4 (75%)
	Previous hypertension	NA	4/4 (100%)	4/4 (100%)
Placenta	Attempted vaginal delivery	No	<i>CHOR3</i>	<i>NC3</i>
		Yes	0/11 (0%)	79/127 (62.2%)
	Delivery	C-Section	11/11 (100%)	48/127 (37.8%)
		Vaginal	4/11 (36.4%)	98/127 (77.17%)
	Gestational age	(weeks)	7/11 (63.6%)	29/127 (22.83%)
			30.27 ± 3.4 (n=11; outlier=0; missing=0)	34.07 ± 3.9 (n=127; outlier=0; missing=0)
	HELLP	No	11/11 (100%)	108/127 (85.04%)
		Yes	0/11 (0%)	19/127 (14.96%)
	FGR	No	11/11 (100%)	89/127 (70.08%)
		Yes	0/11 (0%)	38/127 (29.92%)
	Max. DBP during pregnancy	(mm Hg)	78 ± 13.43 (n=11; outlier=0; missing=0)	99.4 ± 15.44 (n=127; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	123.09 ± 18.25 (n=11; outlier=0; missing=0)	157.57 ± 25.96 (n=127; outlier=0; missing=0)
	Newborn weight	(Z-score)	0.74 ± 0.69 (n=11; outlier=0; missing=0)	-0.84 ± 1.02 (n=127; outlier=0; missing=0)
	PE	No	10/11 (90.9%)	55/127 (43.31%)
		Yes	1/11 (9.1%)	72/127 (56.69%)
	Previous hypertension	NA	8/11 (72.7%)	75/127 (59.06%)
		No	3/11 (27.3%)	32/127 (25.2%)

Tissue*	Variable	Value	Event	Nonevent
Placenta		Yes	0/11 (0%) <i>HELLP2</i>	20/127 (15.75%) <i>NH2</i>
	Attempted vaginal delivery	No	3/3 (100%)	1/5 (20%)
		Yes	0/3 (0%)	4/5 (80%)
	Chorio-amnionitis	No	3/3 (100%)	1/5 (20%)
		Yes	0/3 (0%)	4/5 (80%)
	Delivery	C-Section	3/3 (100%)	3/5 (60%)
		Vaginal	0/3 (0%)	2/5 (40%)
	Gestational age	(weeks)	26.48 ± 0.66 (n=3; outlier=0; missing=0)	26.17 ± 0.27 (n=5; outlier=0; missing=0)
	FGR	No	3/3 (100%)	5/5 (100%)
		Yes	0/3 (0%)	0/5 (0%)
	Max. DBP during pregnancy	(mm Hg)	109 ± 2.65 (n=3; outlier=0; missing=0)	77.2 ± 14.13 (n=5; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	176 ± 20.88 (n=3; outlier=0; missing=0)	136.2 ± 13.37 (n=5; outlier=0; missing=0)
	Newborn weight	(Z-score)	-0.88 ± 0.08 (n=3; outlier=0; missing=0)	-0.26 ± 0.88 (n=5; outlier=0; missing=0)
	PE	No	0/3 (0%)	5/5 (100%)
		Yes	3/3 (100%)	0/5 (0%)
	Previous hypertension	NA	3/3 (100%)	5/5 (100%)
Placenta			<i>HELLP3</i>	<i>NH3</i>
	Attempted vaginal delivery	No	15/19 (78.9%)	64/119 (53.78%)
		Yes	4/19 (21.1%)	55/119 (46.22%)
	Chorio-amnionitis	No	19/19 (100%)	108/119 (90.76%)
		Yes	0/19 (0%)	11/119 (9.24%)
	Delivery	C-Section	18/19 (94.7%)	84/119 (70.59%)
		Vaginal	1/19 (5.3%)	35/119 (29.41%)
	Gestational age	(weeks)	31.03 ± 3.02 (n=19; outlier=0; missing=0)	34.21 ± 3.96 (n=119; outlier=0; missing=0)
	FGR	No	15/19 (78.9%)	85/119 (71.43%)
		Yes	4/19 (21.1%)	34/119 (28.57%)
	Max. DBP during pregnancy	(mm Hg)	112.26 ± 11.19 (n=19; outlier=0; missing=0)	95.37 ± 15.82 (n=119; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	179.26 ± 21.12 (n=19; outlier=0; missing=0)	150.92 ± 25.89 (n=119; outlier=0; missing=0)
	Newborn weight	(Z-score)	-0.89 ± 0.65 (n=19; outlier=0; missing=0)	-0.69 ± 1.14 (n=119; outlier=0; missing=0)
	PE	No	0/19 (0%)	65/119 (54.62%)
		Yes	19/19 (100%)	54/119 (45.38%)
	Previous hypertension	NA	17/19 (89.5%)	66/119 (55.46%)
		No	1/19 (5.3%)	34/119 (28.57%)
		Yes	1/19 (5.3%)	19/119 (15.97%)

\*, no information for other phenotypes of the decidua transcriptome; †, all the samples were from the subjects undergone C-section without HELLP, FGR, OE, and previous hypertension; CHOR2, second-trimester chorioamnionitis; CHOR3, third-trimester chorioamnionitis; ESE, early secretory; FGR, fetal growth restriction; HELLP, hemolysis, elevated liver enzymes, and low platelets; HELLP2, second-trimester HELLP; HELLP3, third-trimester HELLP; LAVH, laparoscopically-assisted vaginal hysterectomy; LSE, late secretory; MSE, mid secretory; NA, not available; NC2, second-trimester non-chorioamnionitis; NC3, third-trimester non-chorioamnionitis; PE, preeclampsia; PRE, proliferative; SCH, subtotal Cesarean hysterectomy; T1, first trimester; T2, second trimester; TAH, total abdominal hysterectomy; TE, term; TVH, transvaginal hysterectomy.

Table S4. Phenotype characteristics of discovery and validation sets (if any) of placental transcriptome for the subtypes.

Isolated preeclampsia (PE) discovery and validation sets							
Set	Variable	Value	EOSPE	LOSPE	Control		
Discovery set	Attempted vaginal delivery	No	10/15 (66.7%)	1/7 (14%)	12/18 (66.7%)		
		Yes	5/15 (33.3%)	6/7 (86%)	6/18 (33.3%)		
	Chorio-amnionitis	No	15/15 (100%)	7/7 (100%)	18/18 (100%)		
		Yes	0/15 (0%)	0/7 (0%)	0/18 (0%)		
	Delivery	C-Section	15/15 (100%)	2/7 (29%)	13/18 (72.2%)		
		Vaginal	0/15 (0%)	5/7 (71%)	5/18 (27.8%)		
	Gestational age	(weeks)	30.66 ± 1.41 (n=15; outlier=0; missing=0)	36.47 ± 1.78 (n=7; outlier=0; missing=0)	39.06 ± 0.91 (n=18; outlier=0; missing=0)		
					18/18 (100%)		
	HELLP	No	10/15 (66.7%)	5/7 (71%)	18/18 (100%)		
		Yes	5/15 (33.3%)	2/7 (29%)	0/18 (0%)		
	Max. DBP during pregnancy	(mm Hg)	108.27 ± 8.74 (n=15; outlier=0; missing=0)	104.29 ± 5.99 (n=7; outlier=0; missing=0)	76.72 ± 6.94 (n=18; outlier=0; missing=0)		
	Max. SBP during pregnancy	(mm Hg)	176 ± 12.68 (n=15; outlier=0; missing=0)	178.71 ± 13.76 (n=7; outlier=0; missing=0)	119.56 ± 6.49 (n=18; outlier=0; missing=0)		
	Newborn weight	(Z-score)	-0.43 ± 0.49 (n=15; outlier=0; missing=0)	-0.23 ± 0.58 (n=7; outlier=0; missing=0)	0.11 ± 0.71 (n=18; outlier=0; missing=0)		
	Validation set	Previous hypertension	NA	12/15 (80%)	6/7 (86%)	6/18 (33.3%)	
No			3/15 (20%)	1/7 (14%)	12/18 (66.7%)		
Yes			0/15 (0%)	0/7 (0%)	0/18 (0%)		
Delivery		NA		10/10 (100%)	202/229 (88.21%)		
		C-Section		0/10 (0%)	0/229 (0%)		
		Vaginal		0/10 (0%)	27/229 (11.79%)		
Gestational age		(weeks)		35.12 ± 1.26 (n=10; outlier=0; missing=6)	38.82 ± 1.64 (n=229; outlier=0; missing=29)		
					39.16 ± 1.61 (n=229; outlier=0; missing=74)		
HELLP		NA		10/10 (100%)	224/229 (97.82%)		
		No		0/10 (0%)	5/229 (2.18%)		
		Yes		0/10 (0%)	0/229 (0%)		
Max. DBP during pregnancy		(mm Hg)		105.18 ± 12.11 (n=10; outlier=0; missing=5)	65.7 ± 8.73 (n=229; outlier=0; missing=215)		
Max. SBP during pregnancy		(mm Hg)		165.88 ± 9 (n=10; outlier=0; missing=5)	113.84 ± 6.78 (n=229; outlier=0; missing=215)		
Newborn weight		(Z-score)		2553.7 ± 676.89 (n=10; outlier=0; missing=0)	3407.53 ± 485.53 (n=229; outlier=0; missing=10)		
Previous hypertension	NA		4/10 (40%)	200/229 (97.34%)			
	No		6/10 (60%)	29/229 (12.66%)			
	Yes		0/10 (0%)	0/229 (0%)			
Preeclampsia (PE) with fetal growth restriction discovery and validation sets							
Set	Variable	Value	EOMPE-FGR	LOMPE-FGR	EOSPE-FGR	LOSPE-FGR	Control
Discovery set	Attempted vaginal delivery	No	4/4 (100%)	3/3 (100%)	10/11 (90.9%)	0/7 (0%)	12/18 (66.7%)
		Yes	0/4 (0%)	0/3 (0%)	1/11 (9.1%)	7/7 (100%)	6/18 (33.3%)
	Chorio-amnionitis	No	4/4 (100%)	3/3 (100%)	11/11 (100%)	7/7 (100%)	18/18 (100%)
		Yes	0/4 (0%)	0/3 (0%)	0/11 (0%)	0/7 (0%)	0/18 (0%)
	Delivery	C-Section	4/4 (100%)	3/3 (100%)	11/11 (100%)	4/7 (57%)	13/18 (72.2%)
		Vaginal	0/4 (0%)	0/3 (0%)	0/11 (0%)	3/7 (43%)	5/18 (27.8%)
	Gestational age	(weeks)	31.36 ± 1.48 (n=4; outlier=0; missing=0)	36.67 ± 2.36 (n=3; outlier=0; missing=0)	30.49 ± 2 (n=11; outlier=0; missing=0)	36.31 ± 1.17 (n=7; outlier=0; missing=0)	39.06 ± 0.91 (n=18; outlier=0; missing=0)
	HELLP	No	4/4 (100%)	3/3 (100%)	6/11 (54.5%)	6/7 (86%)	18/18 (100%)
		Yes	0/4 (0%)	0/3 (0%)	5/11 (45.5%)	1/7 (14%)	0/18 (0%)
	Max. DBP during pregnancy	(mm Hg)	100 ± 8.64 (n=4; outlier=0; missing=0)	96 ± 5.29 (n=3; outlier=0; missing=0)	109.45 ± 13.23 (n=11; outlier=0; missing=0)	110.29 ± 6.97 (n=7; outlier=0; missing=0)	76.72 ± 6.94 (n=18; outlier=0; missing=0)

***Preeclampsia (PE) with fetal growth restriction discovery and validation sets***

Set	Variable	Value	EOMPE-FGR	LOMPE-FGR	EOSPE-FGR	LOSPE-FGR	Control
Validation set	Max. SBP during pregnancy	(mm Hg)	149 ± 1.83 (n=4; outlier=0; missing=0)	142.67 ± 6.43 (n=3; outlier=0; missing=0)	175.09 ± 18.69 (n=11; outlier=0; missing=0)	164.71 ± 9.79 (n=7; outlier=0; missing=0)	119.56 ± 6.49 (n=18; outlier=0; missing=0)
	Newborn weight	(Z-score)	-2.3 ± 0.74 (n=4; outlier=0; missing=0)	-1.99 ± 0.53 (n=3; outlier=0; missing=0)	-1.82 ± 0.43 (n=11; outlier=0; missing=0)	-1.5 ± 0.24 (n=7; outlier=0; missing=0)	0.11 ± 0.71 (n=18; outlier=0; missing=0)
	Previous hypertension	NA	3/4 (75%)	2/3 (67%)	9/11 (81.8%)	6/7 (86%)	6/18 (33.3%)
		No	1/4 (25%)	1/3 (33%)	2/11 (18.2%)	1/7 (14%)	12/18 (66.7%)
	Delivery	Yes	0/4 (0%)	0/3 (0%)	0/11 (0%)	0/7 (0%)	0/18 (0%)
		NA			5/5 (100%)	6/6 (100%)	202/229 (88.21%)
		C-Section			0/5 (0%)	0/6 (0%)	0/229 (0%)
		Vaginal			0/5 (0%)	0/6 (0%)	27/229 (11.79%)
	Gestational age	(weeks)			NA	NA	38.82 ± 1.64 (n=229; outlier=0; missing=29)
	Gestational age at delivery	(weeks)			NA	NA	39.16 ± 1.61 (n=229; outlier=0; missing=74)
	HELLP	NA			5/5 (100%)	6/6 (100%)	224/229 (97.82%)
		No			0/5 (0%)	0/6 (0%)	5/229 (2.18%)
	Max. DBP during pregnancy	Yes (mm Hg)			0/5 (0%)	0/6 (0%)	0/229 (0%)
					NA	111 ± (n=1; outlier=0; missing=0)	65.7 ± 8.73 (n=229; outlier=0; missing=215)
	Max. SBP during pregnancy	(mm Hg)			NA	168 ± (n=1; outlier=0; missing=0)	113.84 ± 6.78 (n=229; outlier=0; missing=215)
	Newborn weight	(Z-score)			1649 ± 707.96 (n=5; outlier=0; missing=0)	1766.33 ± 831.03 (n=6; outlier=0; missing=0)	3407.53 ± 485.53 (n=229; outlier=0; missing=10)

***Superimposed preeclampsia (PE) discovery set***

Set	Variable	Value	SIM-LOMPE	SIM-EOSPE	SIM-EOSPE-FGR	Control
Discovery set	Attempted vaginal delivery	No	2/3 (67%)	8/9 (89%)	5/6 (83%)	12/18 (66.7%)
		Yes	1/3 (33%)	1/9 (11%)	1/6 (17%)	6/18 (33.3%)
	Chorioamnionitis	No	3/3 (100%)	9/9 (100%)	6/6 (100%)	18/18 (100%)
		Yes	0/3 (0%)	0/9 (0%)	0/6 (0%)	0/18 (0%)
	Delivery	C-Section	2/3 (67%)	8/9 (89%)	5/6 (83%)	13/18 (72.2%)
		Vaginal	1/3 (33%)	1/9 (11%)	1/6 (17%)	5/18 (27.8%)
	Gestational age	(weeks)	36.95 ± 0.82 (n=3; outlier=0; missing=0)	30.24 ± 2.26 (n=9; outlier=0; missing=0)	30.64 ± 1.82 (n=6; outlier=0; missing=0)	39.06 ± 0.91 (n=18; outlier=0; missing=0)
	HELLP	No	3/3 (100%)	3/9 (33%)	6/6 (100%)	18/18 (100%)
		Yes	0/3 (0%)	6/9 (67%)	0/6 (0%)	0/18 (0%)

***Superimposed preeclampsia (PE) discovery set***

Set	Variable	Value	SIM-LOMPE	SIM-EOSPE	SIM-EOSPE-FGR	Control
	Max. DBP during pregnancy	(mm Hg)	97.67 ± 6.81 (n=3; outlier=0; missing=0)	112.11 ± 7.93 (n=9; outlier=0; missing=0)	116.67 ± 11.31 (n=6; outlier=0; missing=0)	76.72 ± 6.94 (n=18; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	150 ± 7 (n=3; outlier=0; missing=0)	180.44 ± 20.28 (n=9; outlier=0; missing=0)	173 ± 20.32 (n=6; outlier=0; missing=0)	119.56 ± 6.49 (n=18; outlier=0; missing=0)
	Newborn weight	(Z-score)	-0.84 ± 0.1 (n=3; outlier=0; missing=0)	-0.94 ± 0.38 (n=9; outlier=0; missing=0)	-1.83 ± 0.35 (n=6; outlier=0; missing=0)	0.11 ± 0.71 (n=18; outlier=0; missing=0)
	Previous hypertension	NA	0/3 (0%)	6/9 (67%)	1/6 (17%)	6/18 (33.3%)
		No	0/3 (0%)	0/3 (0%)	0/3 (0%)	12/18 (66.7%)
		Yes	3/3 (100%)	3/9 (33%)	5/6 (83%)	0/3 (0%)

**Gestational hypertension discovery and validation sets**

Set	Variable	Value	EGH	LGH	LGH-FGR	Control
Discovery set	Attempted vaginal delivery	NA	0/6 (0%)	0/5 (0%)	6/6 (100%)	0/18 (0%)
		No	0/6 (0%)	1/5 (20%)	0/6 (0%)	12/18 (66.7%)
		Yes	6/6 (100%)	4/5 (80%)	0/6 (0%)	6/18 (33.3%)
	Chorio-amnionitis	NA	0/6 (0%)	0/5 (0%)	6/6 (100%)	0/18 (0%)
		No	3/6 (50%)	5/5 (100%)	0/6 (0%)	18/18 (100%)
		Yes	3/6 (50%)	0/5 (0%)	0/6 (0%)	0/18 (0%)
	Delivery	C-Section	3/6 (50%)	2/5 (40%)	2/6 (33%)	13/18 (72.2%)
		Vaginal	3/6 (50%)	3/5 (60%)	4/6 (67%)	5/18 (27.8%)
	Gestational age	(weeks)	29.43 ± 2.37 (n=6; outlier=0; missing=0)	38.97 ± 1.29 (n=5; outlier=0; missing=0)	37 ± 1.93 (n=6; outlier=0; missing=0)	39.06 ± 0.91 (n=18; outlier=0; missing=0)
	HELLP	NA	0/6 (0%)	0/5 (0%)	6/6 (100%)	0/18 (0%)
		No	6/6 (100%)	5/5 (100%)	0/6 (0%)	18/18 (100%)
		Yes	0/6 (0%)	0/5 (0%)	0/6 (0%)	0/18 (0%)
	Max. DBP during pregnancy	(mm Hg)	87.83 ± 6.88 (n=6; outlier=0; missing=0)	89.2 ± 5.81 (n=5; outlier=0; missing=0)	90 ± 6.42 (n=6; outlier=0; missing=0)	76.72 ± 6.94 (n=18; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	132.5 ± 11.38 (n=6; outlier=0; missing=0)	143 ± 23.64 (n=5; outlier=0; missing=0)	140.67 ± 6.47 (n=6; outlier=0; missing=0)	119.56 ± 6.49 (n=18; outlier=0; missing=0)
	Newborn weight	(Z-score)	0.52 ± 0.78 (n=6; outlier=0; missing=0)	-0.07 ± 0.47 (n=5; outlier=0; missing=0)	-1.95 ± 0.72 (n=6; outlier=0; missing=0)	0.11 ± 0.71 (n=18; outlier=0; missing=0)
	Previous hypertension	NA	2/6 (33%)	3/5 (60%)	6/6 (100%)	6/18 (33.3%)
		No	4/6 (67%)	2/5 (40%)	0/6 (0%)	12/18 (66.7%)
		Yes	0/6 (0%)	0/5 (0%)	0/6 (0%)	0/18 (0%)
Validation set	Delivery	NA		8/8 (100%)		202/229 (88.21%)
		C-Section		0/8 (0%)		0/229 (0%)
		Vaginal		0/8 (0%)		27/229 (11.79%)
	Gestational age	(weeks)		38.75 ± 2.05 (n=8; outlier=0; missing=0)		38.82 ± 1.64 (n=229; outlier=0; missing=29)
	Gestational age at delivery	(weeks)		38.75 ± 2.05 (n=8; outlier=0; missing=0)		39.16 ± 1.61 (n=229; outlier=0; missing=74)
	HELLP	NA		8/8 (100%)		224/229 (97.82%)
		No		0/8 (0%)		5/229 (2.18%)
		Yes		0/8 (0%)		0/229 (0%)
	Max. DBP during pregnancy	(mm Hg)		NA		65.7 ± 8.73 (n=229; outlier=0; missing=215)
	Max. SBP during pregnancy	(mm Hg)		NA		113.84 ± 6.78 (n=229; outlier=0; missing=215)
	Newborn weight	(Z-score)		3162.5 ± 343 (n=8; outlier=0; missing=0)		3407.53 ± 485.53 (n=229; outlier=0; missing=10)
	Previous hypertension	NA		8/8 (100%)		0/29 (0%)
		No		0/8 (0%)		29/29 (100%)
		Yes		0/8 (0%)		0/29 (0%)

Chronic hypertension discovery set						
Set	Variable	Value	LCH	ECH-FGR	LCH-FGR	Control
Discovery set	Attempted vaginal delivery	No	4/5 (80%)	8/8 (100%)	5/6 (83%)	12/18 (66.7%)
		Yes	1/5 (20%)	0/8 (0%)	1/6 (17%)	6/18 (33.3%)
	Chorio-amnionitis	No	5/5 (100%)	8/8 (100%)	6/6 (100%)	18/18 (100%)
		Yes	0/5 (0%)	0/8 (0%)	0/6 (0%)	0/18 (0%)
	Delivery	C-Section	4/5 (80%)	8/8 (100%)	6/6 (100%)	13/18 (72.2%)
		Vaginal	1/5 (20%)	NA	NA	5/18 (27.8%)
	Gestational age (weeks)		37.31 ± 0.94 (n=5; outlier=0; missing=0)	29.96 ± 1.86 (n=8; outlier=0; missing=0)	36.21 ± 1.01 (n=6; outlier=0; missing=0)	39.06 ± 0.91 (n=18; outlier=0; missing=0)
	HELLP	No	5/5 (100%)	8/8 (100%)	6/6 (100%)	18/18 (100%)
		Yes	0/5 (0%)	0/8 (0%)	0/6 (0%)	0/18 (0%)
	Max. DBP during pregnancy	(mm Hg)	105.8 ± 4.6 (n=5; outlier=0; missing=0)	101.38 ± 11.44 (n=8; outlier=0; missing=0)	109.67 ± 6.65 (n=6; outlier=0; missing=0)	76.72 ± 6.94 (n=18; outlier=0; missing=0)
	Max. SBP during pregnancy	(mm Hg)	166.2 ± 8.96 (n=5; outlier=0; missing=0)	171.12 ± 16.5 (n=8; outlier=0; missing=0)	169.17 ± 15.03 (n=6; outlier=0; missing=0)	119.56 ± 6.49 (n=18; outlier=0; missing=0)
	Newborn weight	(Z-score)	-0.44 ± 1.18 (n=5; outlier=0; missing=0)	-1.77 ± 0.47 (n=8; outlier=0; missing=0)	-2.2 ± 0.84 (n=6; outlier=0; missing=0)	0.11 ± 0.71 (n=18; outlier=0; missing=0)
	Previous hypertension	NA	3/5 (60%)	6/8 (75%)	4/6 (67%)	6/18 (33.3%)
		No	0/5 (40%)	2/8 (25%)	1/6 (17%)	12/18 (66.7%)
		Yes	2/5 (40%)	0/8 (25%)	1/6 (17%)	9/18 (0%)
Isolated fetal growth restriction discovery and validation sets						
Set	Variable	Value	LFGR	Control		
Discovery set	Attempted vaginal delivery	NA	11/11 (100%)	0/18 (0%)		
		No	0/11 (0%)	12/18 (66.7%)		
		Yes	0/11 (0%)	6/18 (33.3%)		
	Chorio-amnionitis	NA	11/11 (100%)			
		No	0/11 (0%)	18/18 (100%)		
		Yes	0/11 (0%)			
	Delivery	C-Section	5/11 (45.5%)	13/18 (72.2%)		
		Vaginal	6/11 (54.5%)	5/18 (27.8%)		
	Gestational age (weeks)		37.22 ± 1.1 (n=11; outlier=0; missing=0)	39.06 ± 0.91 (n=18; outlier=0; missing=0)		
	HELLP	NA	11/11 (100%)	0/18 (0%)		
		No	0/11 (0%)	18/18 (100%)		
		Yes	0/11 (0%)	0/18 (0%)		
	Max. DBP during pregnancy	(mm Hg)	73.55 ± 8.13 (n=11; outlier=0; missing=0)	76.72 ± 6.94 (n=18; outlier=0; missing=0)		
	Max. SBP during pregnancy	(mm Hg)	124 ± 11.44 (n=11; outlier=0; missing=0)	119.56 ± 6.49 (n=18; outlier=0; missing=0)		
	Newborn weight	(Z-score)	-1.93 ± 0.4 (n=11; outlier=0; missing=0)	0.11 ± 0.71 (n=18; outlier=0; missing=0)		
	Previous hypertension	NA	11/11 (100%)	6/18 (33.3%)		
		No	0/11 (0%)	12/18 (66.7%)		
		Yes	0/11 (0%)	0/11 (0%)		
Validation set	Delivery	NA	10/14 (71.4%)	200/229 (88.21%)		
		C-Section	0/14 (0%)	0/229 (0%)		
		Vaginal	4/14 (28.6%)	29/229 (11.79%)		
	Gestational age (weeks)		37.33 ± 1.86 (n=14; outlier=0; missing=1)	38.82 ± 1.64 (n=229; outlier=0; missing=29)		
	Gestational age at delivery	(weeks)	34.67 ± 1.15 (n=14; outlier=0; missing=11)	39.16 ± 1.61 (n=229; outlier=0; missing=74)		
	HELLP	NA	14/14 (100%)	224/229 (97.82%)		
		No	0/14 (0%)	5/229 (2.18%)		
		Yes	0/14 (0%)	0/229 (0%)		
	Max. DBP during pregnancy	(mm Hg)	71.47 ± 9.74 (n=6; outlier=0; missing=0)	65.7 ± 8.73 (n=14; outlier=0; missing=0)		
	Max. SBP during pregnancy	(mm Hg)	122.07 ± 6.64 (n=6; outlier=0; missing=0)	113.84 ± 6.78 (n=14; outlier=0; missing=0)		
	Newborn weight	(Z-score)	1956.82 ± 436.82 (n=14; outlier=0; missing=0)	3407.53 ± 485.53 (n=219; outlier=0; missing=0)		
		NA	0/1 (0%)	0/29 (0%)		

---

**Isolated fetal growth restriction discovery and validation sets**

---

<b>Set</b>	<b>Variable</b>	<b>Value</b>	<b>LFGR</b>	<b>Control</b>
	Previous	No	1/1 (100%)	29/29 (100%)
	hypertension	Yes	0/1 (0%)	0/29 (0%)

---

CH, chronic hypertension; DBP, diastolic blood pressure; ECH, early-onset CH; EGH, early-onset GH; EOMPE, early-onset, mild-to-moderate PE; EOSPE, early-onset, severe PE; FGR, fetal growth restriction; GH, gestational hypertension; HELLP, hemolysis, elevated liver enzymes, and low platelets; LCH, late-onset CH; LFGR, late-onset FGR; LGH, late-onset GH; LOMPE, late-onset, mild-to-moderate PE; LOSPE, late-onset, severe PE; NA, not available; PE, preeclampsia; SBP, systolic blood pressure; SIM, superimposed.

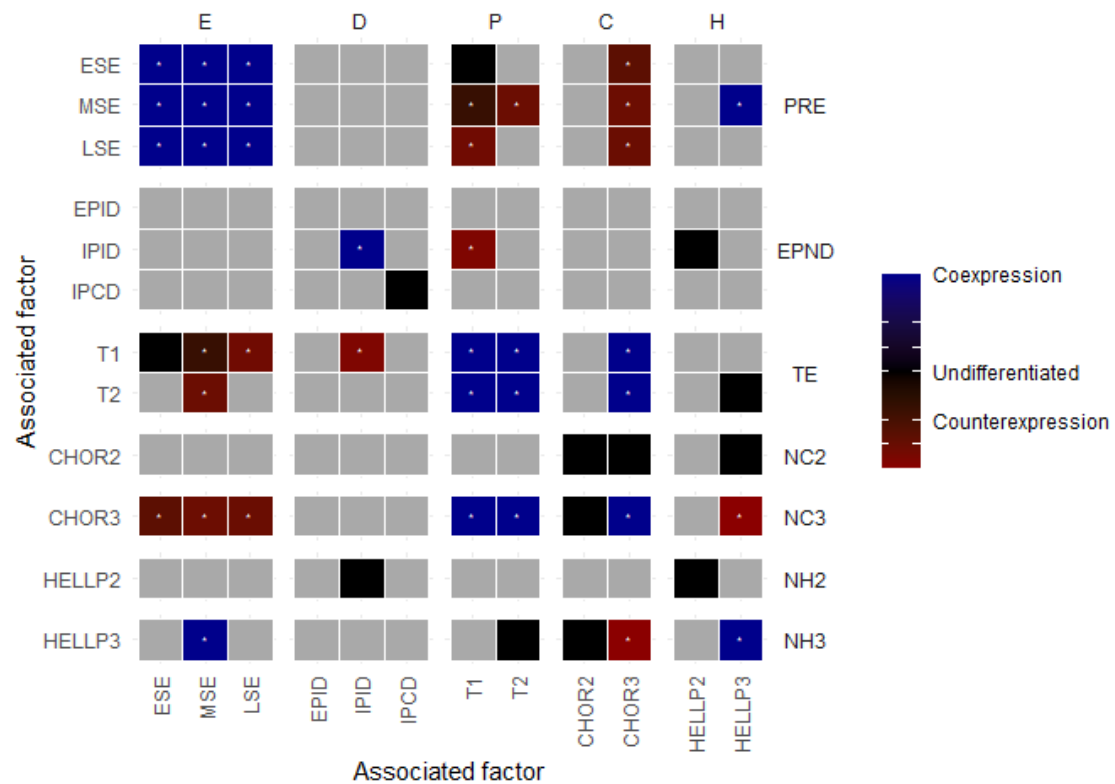


Figure S1. Overlapped DEG analysis among the associated factors. All non-grey tiles are significant for the non-regulation specific overlap. Although a full overlap is definitely applied for the same associated factors, the number may be equivalent to be undifferentiated expression. \*, significant for both the non-regulation- and regulation-specific overlaps; C, chorioamnionitis; CHOR2, second-trimester chorioamnionitis placenta; CHOR3, third-trimester chorioamnionitis placenta; D, decidua; E, endometrium; EPID, ectopic-pregnancy, intermediate decidua; EPND, ectopic pregnancy, non-decidualized endometrium; ESE, early-secretory endometrium; H, HELLP; HELLP, hemolysis, elevated liver enzymes, and low platelets; HELLP2, second-trimester HELLP; HELLP3, third-trimester HELLP; LSE, late-secretory endometrium; IPID, intrauterine-pregnancy, confluent decidua; IPID, intrauterine-pregnancy, intermediate decidua; MSE, mid-secretory endometrium; NA, not available; NC2, second-trimester non-chorioamnionitis placenta; NC3, third-trimester non-chorioamnionitis placenta; PRE, proliferative endometrium; T1, first-trimester placenta; T2, second-trimester placenta; TE, term placenta.