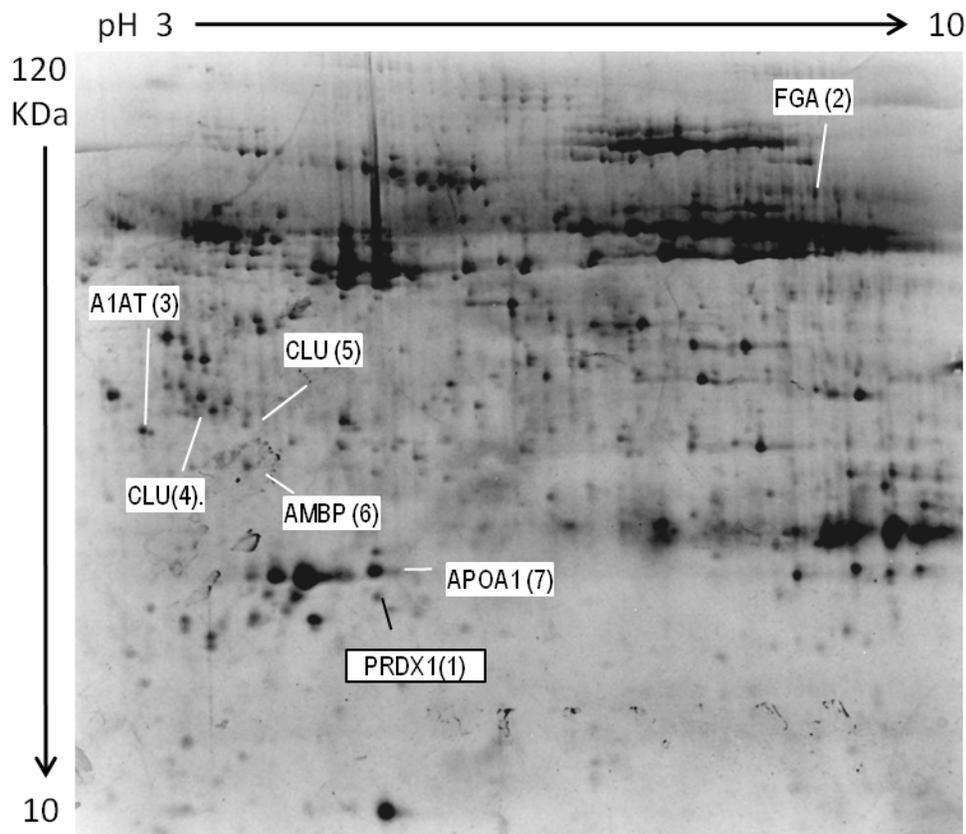


Supplemental Fig 1. Representative 2-D gel pH 3-10NL of conditioned media from HepG2 cells treated with either 1%, 4% or 20% ambient air. Proteins indicated are top scoring hits of spots identified following in gel digestion and LC-MS/MS identification of the spots. Proteins spots indicated are not significantly changing by ANOVA . Complete MS data are listed in supplemental Table 1.

Supplemental Table 1. LC-MS/MS identification of the protein spots from HepG2 conditioned media in supplemental figure 1.

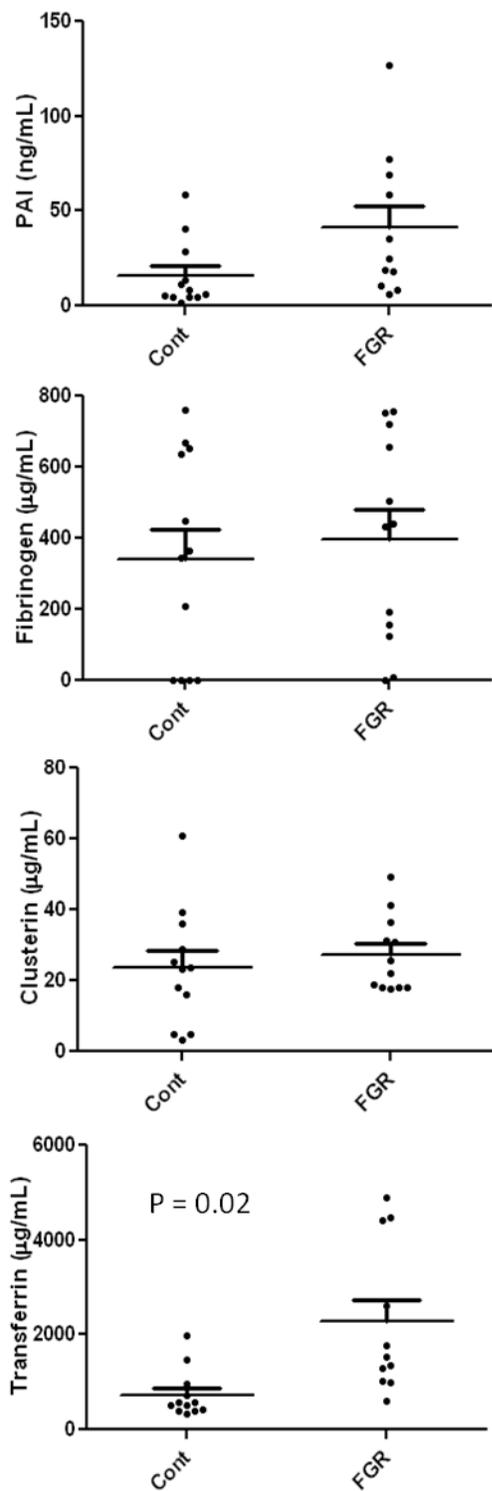
Spot ID	Accession	Description	Mascot	Peptides
1	IPI00553177	Alpha-1-antitrypsin	201	6
	IPI00032220	Angiotensinogen	195	4
	IPI00295542	Nucleobindin-1	59	2
2	IPI00022443	Alpha-fetoprotein	69	2
	IPI00022434	Putative uncharacterized protein albumin	62	4
3	IPI00022434	Putative uncharacterized protein albumin	125	8
4	IPI00553177	Alpha-1-antitrypsin	427	17
	IPI00032220	Angiotensinogen	123	4
	IPI00031121	Carboxypeptidase E precursor	96	4
	IPI00030702	Isocitrate dehydrogenase [NAD] α , mitochondrial	42	1
	IPI00022431	Alpha-2-HS-glycoprotein like	40	2
	IPI00216773	Albumin	38	1
5	IPI00216773	Albumin	51	3
6	IPI00216773	Albumin	69	2
7	IPI00216773	Albumin	61	2
8	IPI00216773	Albumin	94	4
9	IPI00216773	Albumin	90	4
	IPI00290460	Eukaryotic translation initiation factor 3 subunit G	73	1
10	IPI00169383	Phosphoglycerate kinase 1	247	10
11	IPI00169383	Phosphoglycerate kinase 1	64	2
12	IPI00553177	Alpha-1-antitrypsin	144	6
	IPI00022213	Gastricsin	58	1
13	IPI00465439	Fructose-bisphosphate aldolase A	162	6
	IPI00418262	Fructose-bisphosphate aldolase C like	77	3
14	IPI00010896	Chloride intracellular channel protein 1	382	7
	IPI00022426	Alpha-1-microglobulin/bikunin precursor	108	3
15	IPI00022426	Alpha-1-microglobulin/bikunin precursor	69	2
16	IPI00386854	Heterogeneous nuclear ribonucleoproteins A2/B1	77	1
17	IPI00003815	Rho GDP-dissociation inhibitor 1	109	4
18	IPI00021841	Apolipoprotein A-I	256	9
19	IPI00021841	Apolipoprotein A-I	149	10
20	IPI00022432	Transthyretin	183	5
21	IPI00419585	Peptidyl-prolyl cis-trans isomerase A	123	4
22	IPI00022432	Cofilin 1 (non-muscle)	183	5



Supplemental Fig 2. A representative 2-D gel pH 3-10NL of fetal cord plasma after albumin and IgG depletion. Twelve FGR and twelve matching gestational age control fetal plasma samples (Fig 1 and Table 1) were separated by 2-DGE after albumin and IgG depletion. Densitometric software analysis compared changes by paired t-test ($P < 0.05$) between control and FGR groups. Proteins indicated are top scoring hits of significantly changing spots identified by LC-MS/MS. PRDX1 (black border) is increasing in spot density, while others are decreasing in FGR compared to controls. Complete MS and quantitative data are listed in Supplemental Table 2.

Supplemental Table 2. Densitometric fold change and LC-MS/MS identification of the protein spots significantly increasing or decreasing by paired t-test in supplemental figure 2. Proteins for which subsequent ELISA was performed on the fetal cord plasma are in bold.

Spot ID	Accession	Description	Mascot	Peptides	Change	P
1	IPI00027350	Peroxiredoxin-2	102	2	1.93	0.026
	IPI00022434	Putative uncharacterized protein ALB	62	4		
2	IPI00029717	Fibrinogen alpha chain	145	6	-2.19	0.020
	IPI00554676	Hemoglobin subunit gamma-2	103	3		
3	IPI00553177	Isoform 1 of Alpha-1-antitrypsin	120	2	-1.59	0.012
4	IPI00291262	Clusterin	74	4	-1.81	0.038
5	IPI00291262	Clusterin	212	4	-1.46	0.034
6	IPI00022426	Protein AMBP	65	2	-1.19	0.027
7	IPI00021841	Apolipoprotein A-I	170	7	-1.15	0.047



Supplemental Fig 3. Immunological based measurement from control and FGR cord plasma samples (Table 2 and Fig 5), analyzing levels of PAI-1, fibrinogen, clusterin and transferrin. Levels between FGR and control groups. Significance determined by t-test.