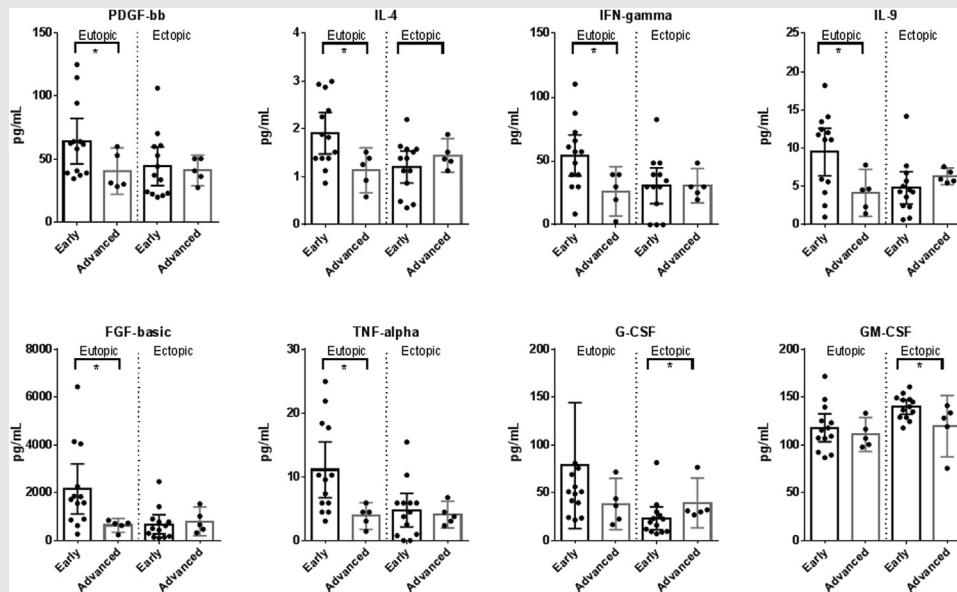


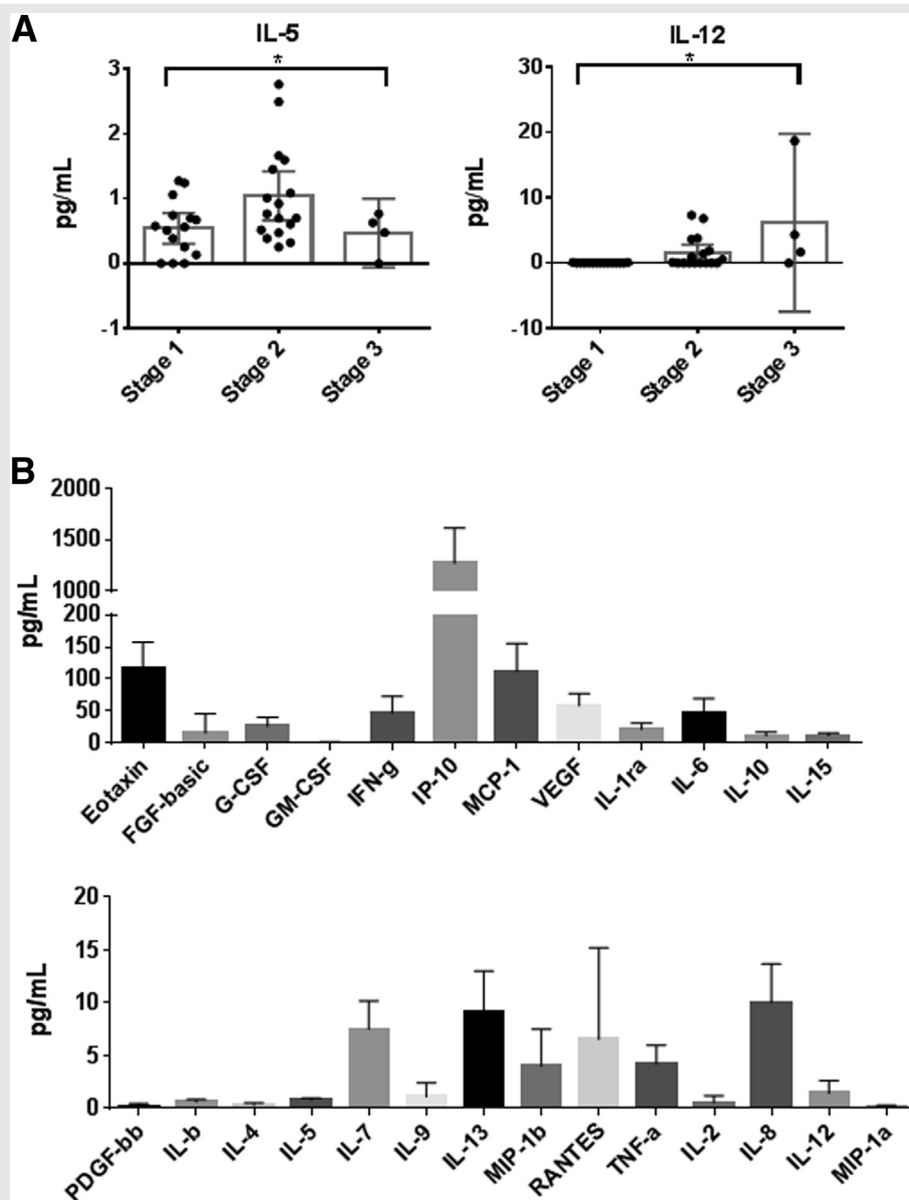
## SUPPLEMENTAL FIGURE 1



When tissue samples were stratified by disease stage and tissue type, levels of platelet-derived growth factor (PDGF) bb, interleukin (IL) 4, interferon (IFN)  $\gamma$ , IL-9, basic fibroblast growth factor (FGF-basic), and tumor necrosis factor (TNF)  $\alpha$  were found to be higher in early- vs. advanced-stage eutopic samples. In early- vs. advanced-stage ectopic samples, granulocyte-macrophage colony-stimulating factor (GM-CSF) levels were higher in early-stage compared to advanced-stage, whereas granulocyte colony-stimulating factor (G-CSF) levels were lower in early-stage compared with advanced-stage ectopic samples. No differences were observed for other cytokines. Bars represent the mean, and the whiskers represent the 95% confidence intervals. \* $P < .05$ ;  $n = 13$  (early stage);  $n = 5$  (advanced stage); paired  $t$  test or Wilcoxon signed ranked test.

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## SUPPLEMENTAL FIGURE 2



(A) Peritoneal fluid levels of IL-5 changed significantly according to endometriosis stage ( $P=.042$ ), but post hoc tests revealed that the differences were not significant. Differences in peritoneal fluid levels of IL-12 were significant only when comparing stage 3 vs. stage 1.  $*P<.05$ ;  $n = 36$ ; one-way analysis of variance (ANOVA) and Tukey test (IL-5); Kruskal-Wallis ANOVA and Dunn multiple comparison (IL-12). (B) Mean cytokine concentrations in the peritoneal fluid of patients. IP = interferon-inducible protein; MCP = monocyte chemotactic protein; MIP = macrophage inflammatory protein; RANTES = Regulated on activation, normal T expressed and secreted; VEGF = vascular endothelial growth factor; other abbreviations as in Supplemental Figure 1. Bars represent the mean, and the whiskers represent the 95% confidence intervals.

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## SUPPLEMENTAL TABLE 1

Comparison of cytokine profiles in plasma samples from endometriosis patients stratified by disease stage versus normal subjects.

Cytokine	Early endometriosis (n = 14)			Advanced endometriosis (n = 5)			Normal (n = 25)	df	H test		Significance <sup>a</sup>
	Pre-op	Post-op	3-mo	Pre-op	Post-op	3-mo			$\chi^2$	P value	
G-CSF	372.91	347.51	339.38	460.72	335.51	230.43	31.52	6	33.141	<.001	Advanced Pre-op > Normal; All Early > Normal
IFN- $\gamma$	550.39	568.09	536.63	765.54	468.05	606.03	12.64	6	24.656	<.001	Advanced Pre-op > Normal
RANTES	10344.38	11676.73	12513.64	14090.46	16945.80	9767.90	505.96	6	20.792	.002	Advanced Post-op > Normal
IL-1Ra	824.31	647.15	650.44	862.77	565.78	659.16	51.38	6	26.745	<.001	Advanced Pre-op > Normal; Early Pre-op > Normal
IL-4	15.35	15.66	15.45	22.36	15.99	16.39	3.90	6	18.104	.006	Advanced Pre-op > Normal
IL-5	32.73	25.57	27.22	33.86	19.86	23.84	0.37	6	29.221	<.001	Advanced Pre-op > Normal
IL-6	44.99	36.57	37.87	50.85	34.07	39.54	2.05	6	22.347	.001	Advanced Pre-op > Normal; Early Pre-op > Normal
IL-7	45.48	49.61	47.42	57.59	38.69	35.82	0.00	6	25.607	<.001	Advanced Pre-op > Normal; All Early > Normal
IL-9	37.59	45.44	44.33	59.10	60.67	40.73	0.68	6	25.15	<.001	Advanced Pre-op > Normal
IL-10	103.31	80.88	67.99	137.26	90.10	66.18	3.99	6	28.905	<.001	Advanced Pre-op > Normal
IL-12	71.98	128.01	92.24	171.24	125.29	88.62	6.40	6	22.684	<.001	Advanced Pre-op > Normal

Note: Protein levels are expressed in units of pg/mL. bFGF = basic fibroblast growth factor; G-CSF = granulocyte colony-stimulating factor; IFN = interferon; IL = interleukin; IL-1Ra = interleukin -1 receptor antagonist; RANTES = Regulated on activation, normal T expressed and secreted.

<sup>a</sup> Kruskal-Wallis one-way analysis of variance (H test) and Dunn post hoc test.

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## SUPPLEMENTAL TABLE 2

Comparison of cytokine profiles in plasma samples from endometriosis patients stratified by disease stage versus normal subjects at proliferative and secretory phases of menstrual cycle.

Cytokine	Endometriosis (n = 19)			Normal (n = 9)		df	H test		Significance <sup>a</sup>
	Pre-op	Post-op	3-mo	Secretory phase	Proliferative phase		$\chi^2$	P value	
Eotaxin	187.232	154.124	119.302	68.83	50.51	5	15.209	.01	Post-op > Proliferative
G-CSF	376.745	339.129	319.49	0	16.92	5	42.909	< .001	All > Proliferative and Secretory
IFN- $\gamma$	726.181	495.652	606.033	10.59	9.13	5	43.528	< .001	All > Proliferative and Secretory
IP-10	508.331	587.684	533.152	224.85	284.02	5	29.479	< .001	All > Proliferative and Secretory, except 3-mo vs. Proliferative (which was not significant)
MCP-1	167.822	108.273	120.473	210.15	175.69	5	17.954	.003	Normal > Proliferative
RANTES	12937.496	13219.218	11977.691	378.84	474.72	5	44.126	< .001	All > Proliferative and Secretory
TNF- $\alpha$	244.137	193.475	209.727	9.7	7.41	5	43.703	< .001	All > Proliferative and Secretory
IL-1b	12.239	9.794	11.748	1.9	4.26	5	18.401	.002	Pre-op and 3-mo > Proliferative
IL-2	53.659	38.976	40.06	4.01	4.27	5	14.703	.012	Pre-op > Proliferative
IL-4	17.205	15.988	16.176	1.31	3.59	5	36.516	< .001	All > Proliferative and Secretory
IL-5	33.856	25.44	23.843	0.23	0.31	5	43.665	< .001	All > Proliferative and Secretory
IL-6	50.849	34.074	39.542	1.92	1.15	5	38.542	< .001	All > Proliferative and Secretory
IL-7	47.455	46.2	44.095	0	0	5	42.12	< .001	All > Proliferative and Secretory
IL-8	175.699	157.218	146.653	16.55	7.72	5	35.06	< .001	All > Proliferative and Secretory
IL-9	46.191	55.361	42.63	0.59	0.55	5	35.894	< .001	All > Proliferative and Secretory
IL-10	124.865	90.096	66.182	2.3	2.97	5	42.483	< .001	All > Proliferative and Secretory
IL-12	98.578	125.291	88.624	2.57	4.19	5	34.494	< .001	All > Proliferative and Secretory
IL-13	19.755	19.285	17.287	1.51	0.29	5	19.389	.002	Pre-op and 3-mo > Proliferative

Note: Protein levels are expressed in units of pg/mL. MCP = monocyte chemotactic protein; RANTES = Regulated on activation, normal T expressed and secreted; TNF = tumor necrosis factor; other abbreviations as in Supplemental Table 1.

<sup>a</sup> Kruskal-Wallis one-way analysis of variance (H test) and Dunn post hoc test.

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## SUPPLEMENTAL TABLE 3

Pearson correlation coefficients and *P* values for the findings in this study.

Variable	Cytokine	Ectopic tissue	
		Pearson <i>r</i>	<i>P</i> value
Preoperative plasma	VEGF	0.536	.0219
Postoperative plasma	IL-5	0.52	.0269
3-mo plasma	GM-CSF	−0.529	.024
	IP-10	0.478	.0451
	G-CSF	0.499	.0352
Eutopic tissue	IL-4	−0.658	.00301

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