Online Appendix:
Inventor Gender and the Direction of Invention

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Appendix Figure 1 replicates Figure 1 from the paper but for patents with a female inventor who is not the team lead. Table 2 reports several robustness checks. Model 1 shows are results hold when we include all disease-technology-year observations, not just those with at least 5 patents. Model 2 shows that our findings hold when only including observations with at least 10 patents. Model 3 shows our results hold without weighting the regression by the area's patent count. Model 4 shows that the results hold when we use a pseudo-Poisson regression model (the Stata command `ppmlhdfe`). Pseudo-Poisson models can be used to model any non-negative dependent variable without the need to specify a distribution. This check is particularly important since there is a spike of disease-technology-year observations with zero female-focused inventions (11% of our observations). Table 3 shows the results hold when we aggregate our data at a finer-grained disease area (Level 4 of the MeSH ontology). Table 4 shows the results hold when we aggregate our data at a coarser-grained disease area (Level 2 of the MeSH ontology). See Koning, Samila and Ferguson (2019) for more information on MeSH disease levels.

Table 1: Robustness of the effect of female inventor share on the share of female-focused inventions.

	(1)	(2)	(3)	(4)
Percent lead female inventors	0.076	0.144	0.120	0.463
	(0.026)	(0.056)	(0.039)	(0.172)
Percent non-lead female inventors	-0.019	-0.062	-0.025	0.141
	(0.025)	(0.040)	(0.033)	(0.158)
Disease X Technology FEs	Yes	Yes	Yes	Yes
Disease X Year FEs	Yes	Yes	Yes	Yes
Science X Year FEs	Yes	Yes	Yes	Yes
Patent Count FEs	Yes	Yes	Yes	Yes
Minimum Patent Count	1	10	5	5
Weighted by Count?	Yes	Yes		
Estimator	OLS	OLS	OLS	PPML
Observations	12,396	3,302	5,320	5,258

Disease-technology-year area observations.

Standard errors are clustered at the disease and technology level.

Table 2: The effect of female inventor share on the share of female-focused inventions at coarser-grained disease areas.

	(1)	(2)	(3)	(4)
Percent lead female inventors	0.147	0.098	0.046	0.117
	(0.050)	(0.053)	(0.063)	(0.043)
Percent non-lead female inventors	0.184	0.109	0.071	0.072
	(0.029)	(0.040)	(0.048)	(0.054)
Disease X Technology FEs	Yes	Yes	Yes	Yes
Disease X Year FEs		Yes	Yes	Yes
Science X Year FEs			Yes	Yes
Patent Count FEs				Yes
Observations	5,753	4,068	4,068	3,382

Disease-technology-year area observations.

Standard errors are clustered at the disease and technology level.

Estimates are weighted by the number of patents in the area..

Areas with fewer than five patents are excluded. .

Table 3: The effect of female inventor share on the share of female-focused inventions at finer-grained disease areas.

	(1)	(2)	(3)	(4)
Percent lead female inventors	0.061	0.135	0.129	0.117
	(0.030)	(0.044)	(0.046)	(0.046)
Percent non-lead female inventors	0.034	0.010	-0.002	-0.032
	(0.022)	(0.029)	(0.032)	(0.030)
Disease X Technology FEs	Yes	Yes	Yes	Yes
Disease X Year FEs		Yes	Yes	Yes
Science X Year FEs			Yes	Yes
Patent Count FEs				Yes
Observations	6,694	3,212	3,212	3,038

Disease-technology-year area observations.

Standard errors are clustered at the disease and technology level.

Estimates are weighted by the number of patents in the area..

Areas with fewer than five patents are excluded. .

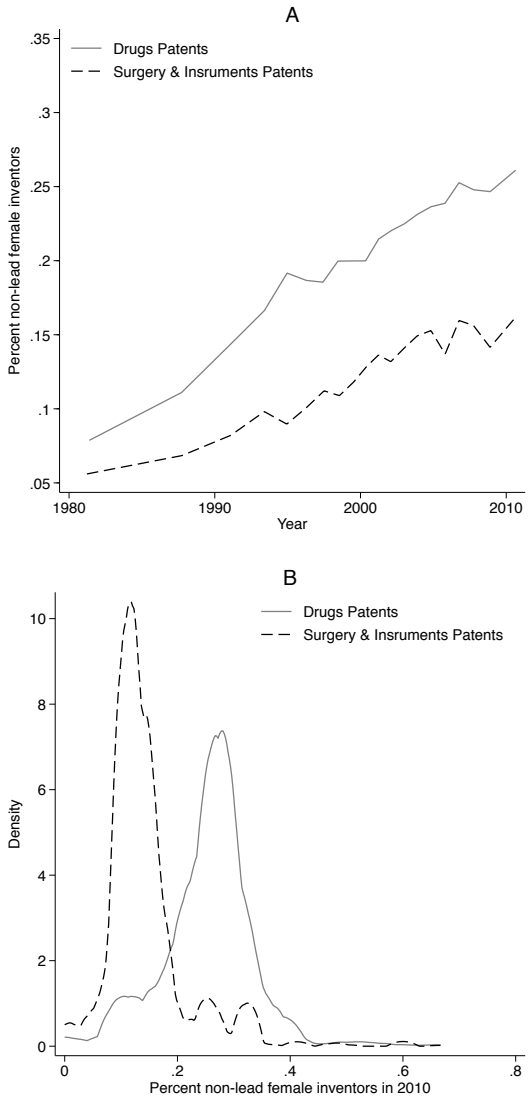

Figure 1: Panel A shows the average percentage of patents with a non-lead female inventor in an area after accounting for disease-level fixed effects. Panel B shows the kernel-density estimate for patents with a non-lead female inventor across disease areas in 2010. In both, the solid line is for Drug patents and the dashed line is for Surgery & Instruments patents. Both are weighted by the number of patents in the disease area.