

Supplemental table 5A. Top Biological Functions affected by Tamoxifen: Diseases and disorders

Biological Function	Molecules in Network	p-value	# of molecules
Cancer	ABCC5, ADORA2B, AFP, ANXA2, C1ORF63, CCL2, CCL13, CFLAR, CLEC3B, CXADR, CXCL2, CYP4A11, DHH, DNAJA1, FOSL1, GCH1, GDF15, GPRC5A, HNRPD, HSPA1A, IGF1, IL1A, INHBA, KIAA1199, KIFC2, MMP10, MX1, NFIL3, PER1, PLAUR, PPP2R2B, RBM4B, SECTM1, SERPINE1, SFN, SFRP2, SLC1A4, SPON2, TNRC6B, TRO, UBE2B	1.29E-05 - 1.60E-02	41
Hypersensitivity Response	CCL2, CCL7, CCL13, CHI3L3, PLAUR	2.86E-05 - 8.16E-03	5
Inflammatory Response	ABHD2, ADORA2B, ANXA2, ARNTL, CCL2, CCL7, CCL13, CHI3L3, CXCL2, HSPA1A, IGF1, IL1A, INHBA, MX1, NFIL3, PLAUR, SECTM1, SERPINE1, SPON2	6.15E-05 - 1.63E-02	19
Nutritional Disease	ACACB, ARNTL, CCL13, CIDEA, DIO2, GCH1, HSPA1A, IGF1, NTF4, SERPINE1	8.99E-05 - 1.18E-02	10
Organismal Injury and Abnormalities	CCL2, CCL13, CFLAR, IGF1, IL1A, INHBA, MX1, PLAUR, SERPINE1	1.04E-04 - 1.62E-02	9

Supplemental table 5B. Top Biological Functions affected by Tamoxifen: Molecular and Cellular functions

Biological Function	Molecules in Network	p-value	# of molecules
Cellular Movement	ANXA2, CCL2, CCL7, CCL13, CHI3L3, CXCL2, DNAJA1, FOSL1, GDF15, IGF1, IL1A, INHBA, MMP10, MX1, NTF4, PLAUR, SERPINE1, SFRP2	1.51E-05 - 1.62E-02	18
Cell Morphology	ANXA2, CCL2, CCL7, CCL13, CXADR, CXCL2, DHH, FZD6, HSPA1A, IGF1, INHBA, NTF4, OSBPL1A, PARD6B, PIGA, PLAUR, SERPINE1, SFN	2.86E-05 - 1.41E-02	18
Cellular Development	ABCC5, CCDC92 (includes EG:80212), CCL2, CCL7, CCL13, CHKA, CXADR, CXCL2, DHH, DIO2, FOSL1, FZD6, GDF15, HSPA1A, IGF1, IL1A, INHBA, NTF4, PARD6B, PIGA, PLAUR, PRKG2, SERPINE1, SFN, SFRP2	2.86E-05 - 1.62E-02	25
Cell-To-Cell Signaling and Interaction	AFP, ANXA2, CCL2, CCL7, CCL13, CXADR, CXCL2, DHH, HSPA1A, IGF1, IL1A, INHBA, NTF4, PARD6B, PLAUR, SERPINE1, SPON2, SYBU, UBE2B	6.15E-05 - 1.63E-02	19
Antigen Presentation	ANXA2, ARNTL, CCL2, CCL7, CCL13, CXCL2, IGF1, IL1A, INHBA, PLAUR, SPON2	8.29E-05 - 8.16E-03	11

Supplemental table 5C. Top Biological Functions affected by Tamoxifen: Physiological System and Development and Function

Biological Function	Molecules in Network	p-value	# of molecules
Hematological System Development and Function	ANXA2, ARNTL, CCL2, CCL7, CCL13, CFLAR, CHI3L3, CXCL2, CYP4A11, HSPA1A, IGF1, IL1A, INHBA, NFIL3, PLAUR, SERPINE1, SPON2	2.86E-05 - 1.63E-02	17
Tumor Morphology	GDF15, IGF1, IL1A, PLAUR, SERPINE1	2.86E-05 - 1.62E-02	5
Immune Cell Trafficking	ANXA2, CCL2, CCL7, CCL13, CHI3L3, CXCL2, HSPA1A, IGF1, IL1A, INHBA, PLAUR, SERPINE1, SPON2	6.15E-05 - 1.63E-02	13
Auditory and Vestibular System Development and Function	DIO2, IGF1	6.59E-05 - 8.16E-03	2
Organ Development	CCL13, DIO2, IGF1, INHBA	6.59E-05 - 1.37E-02	4

Supplemental table 5D. Top Canonical Pathways affected by Tamoxifen

Canonical Pathway	p-value
LXR/RXR Activation	2.53E-03
Aldosterone Signaling in Epithelial Cells	4.76E-03
Role of Hypercytokinemia/hyperchemokineemia in the Pathogenesis of Influenza	1.62E-02
Chemokine Signaling	1.73E-02
Circadian Rhythm Signaling	2.03E-02