

**Supplemental Table S13**  
**Ovarian Disease Published Gene List (416 Genes)**

Gene	Description
ABCA1	ATP binding cassette subfamily A member 1
ABCD3	ATP binding cassette subfamily D member 3
ACSL4	acyl-CoA synthetase long-chain family member 4
ACSL6	acyl-CoA synthetase long-chain family member 6
ACVR2A	activin A receptor type 2A
ACVR2B	activin A receptor type 2B
ADAMTS1	ADAM metalloproteinase with thrombospondin type 1 motif; 1
ADAMTS16	ADAM metalloproteinase with thrombospondin type 1 motif; 16
ADAMTS19	ADAM metalloproteinase with thrombospondin type 1 motif; 19
ADH1B	NA
ADNP	activity-dependent neuroprotector homeobox
AEBP1	AE binding protein 1
AFP	alpha-fetoprotein
AGTR2	angiotensin II receptor; type 2
AHR	aryl hydrocarbon receptor
AIFM1	apoptosis inducing factor; mitochondria associated 1
AIRE	autoimmune regulator
Aire	autoimmune regulator
AKT1	AKT serine/threonine kinase 1
AMBP	alpha-1-microglobulin/bikunin precursor
AMH	anti-Mullerian hormone
ANKRD22	ankyrin repeat domain 22
ANTXR1	anthrax toxin receptor 1
AR	androgen receptor
AREG	amphiregulin
ARNTL	aryl hydrocarbon receptor nuclear translocator-like
ATM	ATM serine/threonine kinase
B4GALT1	beta-1;4-galactosyltransferase 1
BAX	BCL2 associated X; apoptosis regulator
BCHE	butyrylcholinesterase
BCKDHB	branched chain keto acid dehydrogenase E1 subunit beta
BCL2	BCL2; apoptosis regulator
BCL2L11	BCL2 like 11
BCL2L2	Bcl2-like 2
BCORL1	BCL6 co-repressor-like 1
BHLHB9	basic helix-loop-helix family member B9
BMP15	bone morphogenetic protein 15
Bmp15	bone morphogenetic protein 15
BMP4	bone morphogenetic protein 4
BMP8A	bone morphogenetic protein 8a
BMP8B	bone morphogenetic protein 8b

BMPR1B	bone morphogenetic protein receptor type 1B
BMPR2	bone morphogenetic protein receptor type 2
BRCA1	BRCA1; DNA repair associated
BRCA2	BRCA2; DNA repair associated
BRIP1	BRCA1 interacting protein C-terminal helicase 1
BRSK1	BR serine/threonine kinase 1
BRWD1	bromodomain and WD repeat domain containing 1
BSG	basigin
BSX	brain specific homeobox
BTN3A3	NA
C4A	complement component 4A (Rodgers blood group)
CARD11	NA
CASP3	caspase 3
CBS	cystathionine beta synthase
CC2D1A	coiled-coil and C2 domain containing 1A
CCBE1	NA
CCND2	cyclin D2
CCNH	cyclin H
CD81	Cd81 molecule
CD9	CD9 molecule
CDC25B	cell division cycle 25B
CDK2	cyclin dependent kinase 2
CDK4	cyclin-dependent kinase 4
CDKN1A	cyclin-dependent kinase inhibitor 1A
CDKN1B	cyclin-dependent kinase inhibitor 1B
CDKN1C	cyclin-dependent kinase inhibitor 1C
CDKN2A	cyclin-dependent kinase inhibitor 2A
CENPB	centromere protein B
CHM	CHM; Rab escort protein 1
CITED2	Cbp/p300-interacting transactivator; with Glu/Asp-rich carboxy-terminal domain; 2
CKB	creatine kinase B
CKS2	CDC28 protein kinase regulatory subunit 2
CLPP	caseinolytic mitochondrial matrix peptidase proteolytic subunit
CNKS1	connector enhancer of kinase suppressor of Ras 1
COL3A1	collagen type III alpha 1 chain
CP	ceruloplasmin
CPD	carboxypeptidase D
CPE	carboxypeptidase E
CPEB1	cytoplasmic polyadenylation element binding protein 1
CRTC1	CREB regulated transcription coactivator 1
CSF1	colony stimulating factor 1
CSF2	colony stimulating factor 2
CSTF3	cleavage stimulation factor subunit 3
CTGF	connective tissue growth factor
CTNNA3	NA

CXCL12	C-X-C motif chemokine ligand 12
CYP17A1	cytochrome P450; family 17; subfamily a; polypeptide 1
CYP19A1	cytochrome P450; family 19; subfamily a; polypeptide 1
CYP2E1	cytochrome P450; family 2; subfamily e; polypeptide 1
DACH2	NA
DAZAP1	DAZ associated protein 1
DAZL	deleted in azoospermia-like
DBH	dopamine beta-hydroxylase
DDR2	discoidin domain receptor tyrosine kinase 2
DGCR2	NA
DHCR24	24-dehydrocholesterol reductase
DHFR	dihydrofolate reductase
DHH	desert hedgehog
DIAPH2	NA
DLGAP5	DLG associated protein 5
DLX5	distal-less homeobox 5
DLX6	NA
DMC1	DNA meiotic recombinase 1
DNAH5	dynein; axonemal; heavy chain 5
DNMT3L	DNA methyltransferase 3 like
DPPA3	developmental pluripotency-associated 3
DSS1	NA
DUSP22	dual specificity phosphatase 22
EBAG9	estrogen receptor binding site associated; antigen; 9
EED	embryonic ectoderm development
EFNA1	ephrin A1
EFNB2	ephrin B2
EFNB3	ephrin B3
EGR1	early growth response 1
EHF	ets homologous factor
EIF2B2	eukaryotic translation initiation factor 2B subunit beta
EIF2B4	eukaryotic translation initiation factor 2B subunit delta
EIF2B5	eukaryotic translation initiation factor 2B subunit epsilon
EIF4ENIF1	eukaryotic translation initiation factor 4E nuclear import factor 1
EIF5B	eukaryotic translation initiation factor 5B
ERCC1	ERCC excision repair 1; endonuclease non-catalytic subunit
ERCC2	ERCC excision repair 2; TFIIH core complex helicase subunit
EREG	epiregulin
ESR1	estrogen receptor 1
EXPH5	exophilin 5
FANCA	Fanconi anemia; complementation group A
FANCC	Fanconi anemia; complementation group C
FANCG	Fanconi anemia; complementation group G
FANCL	Fanconi anemia; complementation group L
FARP1	FERM; ARH/RhoGEF and pleckstrin domain protein 1

FAS	Fas cell surface death receptor
FERMT2	fermitin family member 2
FIGLA	folliculogenesis specific bHLH transcription factor
FKBP4	FK506 binding protein 4
FMN2	NA
FMOD	fibromodulin
FMR1	fragile X mental retardation 1
FN1	fibronectin 1
FOXB1	forkhead box B1
FOXL2	forkhead box L2
Foxl2	forkhead box L2
FOXO1	forkhead box O1
FOXO3	forkhead box O3
FOXO4	forkhead box O4
FSHR	follicle stimulating hormone receptor
FST	follistatin
FZD4	frizzled class receptor 4
GADL1	NA
GALT	galactose-1-phosphate uridylyltransferase
GDF15	growth differentiation factor 15
GDF9	growth differentiation factor 9
Gdf9	growth differentiation factor 9
GDI1	GDP dissociation inhibitor 1
GGT1	gamma-glutamyltransferase 1
GHR	growth hormone receptor
GJA1	gap junction protein; alpha 1
GJA4	gap junction protein; alpha 4
GNAS	GNAS complex locus
GNRHR	gonadotropin releasing hormone receptor
GPR3	G protein-coupled receptor 3
Gpr3	G protein-coupled receptor 3
GREM1	gremlin 1; DAN family BMP antagonist
GSK3B	glycogen synthase kinase 3 beta
GSTM2	glutathione S-transferase mu 2
GTF2H1	general transcription factor IIH subunit 1
GYPC	glycophorin C (Gerbich blood group)
HAO2	hydroxyacid oxidase 2
HARS2	histidyl-tRNA synthetase 2; mitochondrial
HBA	NA
HBB	hemoglobin subunit beta
HDAC1	histone deacetylase 1
HFM1	HFM1; ATP-dependent DNA helicase homolog
HK3	hexokinase 3
HMX3	H6 family homeobox 3
HNF1A	HNF1 homeobox A

HNMT	histamine N-methyltransferase
HNRNPD	heterogeneous nuclear ribonucleoprotein D
HOXA10	homeobox A10
HSD17B4	hydroxysteroid (17-beta) dehydrogenase 4
HSD3B2	hydroxy-delta-5-steroid dehydrogenase; 3 beta- and steroid delta-isomerase 2
HSF1	heat shock transcription factor 1
HSF2	heat shock transcription factor 2
HTN1	NA
ICAM2	intercellular adhesion molecule 2
ID4	inhibitor of DNA binding 4; HLH protein
IGF1	insulin-like growth factor 1
IGF1R	insulin-like growth factor 1 receptor
IGF2	insulin-like growth factor 2
IGF2R	insulin-like growth factor 2 receptor
IL11RA	NA
IL6ST	interleukin 6 signal transducer
IMMP2L	NA
INHA	inhibin alpha subunit
INHBB	inhibin beta B subunit
INSL3	insulin-like 3
IRS2	insulin receptor substrate 2
ITGAE	integrin subunit alpha E
ITGAV	integrin subunit alpha V
ITGB1	integrin subunit beta 1
ITGB5	integrin subunit beta 5
KISS1	KiSS-1 metastasis-suppressor
KISS1R	KISS1 receptor
KIT	KIT proto-oncogene receptor tyrosine kinase
KLHL14	kelch-like family member 14
LAMC1	laminin subunit gamma 1
LARS2	leucyl-tRNA synthetase 2; mitochondrial
LBR	lamin B receptor
LEP	leptin
LEPR	leptin receptor
LFNG	LFNG O-fucosylpeptide 3-beta-N-acetylglucosaminyltransferase
LHCGR	luteinizing hormone/choriogonadotropin receptor
LHX1	LIM homeobox 1
LHX8	LIM homeobox 8
LHX9	LIM homeobox 9
LIF	LIF; interleukin 6 family cytokine
LIFR	LIF receptor alpha
LIX1	limb and CNS expressed 1
LPAR3	lysophosphatidic acid receptor 3
LY75	lymphocyte antigen 75
LYPLA1	lysophospholipase I

MAL	mal; T-cell differentiation protein
MCM8	minichromosome maintenance 8 homologous recombination repair factor
MCM9	minichromosome maintenance 9 homologous recombination repair factor
MEF2C	myocyte enhancer factor 2C
MEI1	meiotic double-stranded break formation protein 1
MFSD7	major facilitator superfamily domain containing 7
MKNK1	MAP kinase-interacting serine/threonine kinase 1
MLH1	mutL homolog 1
MLH3	mutL homolog 3
MMP2	matrix metalloproteinase 2
MOS	MOS proto-oncogene; serine/threonine kinase
MSH2	mutS homolog 2
MSH4	mutS homolog 4
MSH5	mutS homolog 5
MSL1	male specific lethal 1 homolog
MTHFR	methylenetetrahydrofolate reductase
NAIP	NA
NANOS3	nanos C2HC-type zinc finger 3
NBL1	neuroblastoma 1; DAN family BMP antagonist
NBN	nibrin
NCOA1	nuclear receptor coactivator 1
NDP	NDP; norrin cystine knot growth factor
NEUROD2	neuronal differentiation 2
NFKB1	nuclear factor kappa B subunit 1
NLRP5	NLR family; pyrin domain containing 5
NOBOX	NOBOX oogenesis homeobox
NOG	noggin
NOS1	nitric oxide synthase 1
NOS3	nitric oxide synthase 3
NPEPPS	aminopeptidase puromycin sensitive
NPM2	nucleophosmin/nucleoplasmin 2
NPR2	natriuretic peptide receptor 2
NR0B1	nuclear receptor subfamily 0; group B; member 1
NR2C2	nuclear receptor subfamily 2; group C; member 2
NR2F1	nuclear receptor subfamily 2; group F; member 1
NR5A1	nuclear receptor subfamily 5; group A; member 1
NR5A2	nuclear receptor subfamily 5; group A; member 2
NRIP1	nuclear receptor interacting protein 1
NRXN1	neurexin 1
NUP107	nucleoporin 107
NUPR1	NA
NXF5	NA
OSGIN2	oxidative stress induced growth inhibitor family member 2
OTX1	orthodenticle homeobox 1
OVOL1	ovo like transcriptional repressor 1

OXT	oxytocin/neurophysin 1 prepropeptide
OXTR	oxytocin receptor
PARK2	NA
PAX8	paired box 8
PCDH19	protocadherin 19
PCMT1	protein-L-isoaspartate (D-aspartate) O-methyltransferase 1
PCNA	proliferating cell nuclear antigen
PCOLCE	procollagen C-endopeptidase enhancer
PCSK1	proprotein convertase subtilisin/kexin type 1
PCYT1B	phosphate cytidyltransferase 1; choline; beta
PDE3A	phosphodiesterase 3A
PDE4D	phosphodiesterase 4D
PDGFRB	platelet derived growth factor receptor beta
PGRMC1	progesterone receptor membrane component 1
PIGA	phosphatidylinositol glycan anchor biosynthesis; class A
PIGH	phosphatidylinositol glycan anchor biosynthesis; class H
PIK3CD	phosphatidylinositol-4;5-bisphosphate 3-kinase; catalytic subunit delta
PKP4	plakophilin 4
PLCB1	phospholipase C beta 1
PLOD2	procollagen lysine; 2-oxoglutarate 5-dioxygenase 2
PMAIP1	phorbol-12-myristate-13-acetate-induced protein 1
PML	promyelocytic leukemia
PMM1	phosphomannomutase 1
PMS2	PMS1 homolog 2; mismatch repair system component
POF1B	POF1B; actin binding protein
POLG	DNA polymerase gamma; catalytic subunit
POLH	DNA polymerase eta
POU1F1	POU class 1 homeobox 1
POU5F1	POU class 5 homeobox 1
PPM1A	protein phosphatase; Mg <sup>2+</sup> /Mn <sup>2+</sup> dependent; 1A
PRDM1	PR/SET domain 1
PRG4	proteoglycan 4
PRKCH	protein kinase C; eta
PRL	prolactin
PRLR	prolactin receptor
PROP1	PROP paired-like homeobox 1
PRPF31	pre-mRNA processing factor 31
PRSS8	serine protease 8
PSMB5	proteasome subunit beta 5
PSMC3IP	PSMC3 interacting protein
PSME4	proteasome activator subunit 4
PTEN	phosphatase and tensin homolog
PTGER2	prostaglandin E receptor 2
PTGFR	prostaglandin F receptor
PTGS2	prostaglandin-endoperoxide synthase 2

PTPRS	protein tyrosine phosphatase; receptor type; S
PTX3	pentraxin 3
RAD51C	RAD51 paralog C
RAD51D	RAD51 paralog D
RARRES2	retinoic acid receptor responder 2
RASSF1	Ras association domain family member 1
RBM12B	RNA binding motif protein 12B
REC8	REC8 meiotic recombination protein
REEP1	receptor accessory protein 1
RHOA	ras homolog family member A
RHPN2	rhophilin; Rho GTPase binding protein 2
RPS3A	ribosomal protein S3a
RSL24D1	ribosomal L24 domain containing 1
SALL4	spalt-like transcription factor 4
SERPINB6	NA
SERPINE1	serpin family E member 1
SF1	splicing factor 1
SF3A3	splicing factor 3a; subunit 3
SFRP1	secreted frizzled-related protein 1
SGCG	sarcoglycan; gamma
SGOL2	NA
SGPP1	sphingosine-1-phosphate phosphatase 1
SH2B1	SH2B adaptor protein 1
SHC1	SHC adaptor protein 1
SHOX	NA
SHOX2	short stature homeobox 2
SIRT1	NA
SLC12A2	solute carrier family 12 member 2
SLC4A11	solute carrier family 4 member 11
SMAD1	SMAD family member 1
SMAD5	SMAD family member 5
SMC1B	structural maintenance of chromosomes 1B
SOD1	superoxide dismutase 1
SOHLH1	spermatogenesis and oogenesis specific basic helix-loop-helix 1
SOHLH2	spermatogenesis and oogenesis specific basic helix-loop-helix 2
SORBS3	sorbin and SH3 domain containing 3
SOX17	SRY box 17
SOX3	NA
SPO11	SPO11; initiator of meiotic double stranded breaks
SPON1	spodin 1
SPP1	secreted phosphoprotein 1
SRC	SRC proto-oncogene; non-receptor tyrosine kinase
SRD5A1	steroid 5 alpha-reductase 1
SRY	sex determining region Y
SSBP2	single-stranded DNA binding protein 2



SSR1	signal sequence receptor subunit 1
STAG3	stromal antigen 3
STAMBPL1	STAM binding protein-like 1
STAR	steroidogenic acute regulatory protein
STAT3	signal transducer and activator of transcription 3
STK11	serine/threonine kinase 11
STRA8	stimulated by retinoic acid 8
STRN3	striatin 3
STS	steroid sulfatase
SULT1C2	sulfotransferase family 1C member 2
SULT1E1	sulfotransferase family 1E member 1
SYCE1	synaptonemal complex central element protein 1
SYCP1	synaptonemal complex protein 1
SYCP2	synaptonemal complex protein 2
SYCP3	synaptonemal complex protein 3
TAF4B	TATA-box binding protein associated factor 4b
TCF21	transcription factor 21
TERT	telomerase reverse transcriptase
TFAP2A	transcription factor AP-2 alpha
TG	thyroglobulin
TGFBR3	transforming growth factor beta receptor 3
THBS1	thrombospondin 1
THBS2	thrombospondin 2
TIAL1	Tia1 cytotoxic granule-associated RNA binding protein-like 1
TKT	transketolase
TNFAIP6	TNF alpha induced protein 6
TNFRSF1A	TNF receptor superfamily member 1A
TOP2A	DNA topoisomerase II alpha
TOP3B	DNA topoisomerase III beta
TP53	tumor protein p53
TRIP13	thyroid hormone receptor interactor 13
TSHB	thyroid stimulating hormone; beta
TSPAN4	tetraspanin 4
TSPAN7	tetraspanin 7
UBB	ubiquitin B
UBE2A	ubiquitin-conjugating enzyme E2A
UBE2D1	ubiquitin-conjugating enzyme E2D 1
UBE3A	ubiquitin protein ligase E3A
UBR2	ubiquitin protein ligase E3 component n-recognin 2
UHRF1BP1	UHRF1 binding protein 1
USP9X	ubiquitin specific peptidase 9; X-linked
UTP14A	UTP14A small subunit processome component
VAPB	VAMP associated protein B and C
VBP1	VHL binding protein 1
VCX	NA

VDR	vitamin D receptor
VEGFC	vascular endothelial growth factor C
VIM	vimentin
WFS1	wolframin ER transmembrane glycoprotein
WNT4	Wnt family member 4
Wnt4	Wnt family member 4
WNT7A	Wnt family member 7A
WT1	Wilms tumor 1
XIAP	X-linked inhibitor of apoptosis
XPNPEP2	X-prolyl aminopeptidase 2
YBX2	Y box binding protein 2
YY1	YY1 transcription factor
ZAR1	zygote arrest 1
ZFP36L2	zinc finger protein 36; C3H type-like 2
ZFX	zinc finger protein X-linked
ZIC1	Zic family member 1
ZNF200	NA
ZNF432	NA
ZNF71	NA
ZP1	zona pellucida glycoprotein 1
ZP2	zona pellucida glycoprotein 2
ZP3	zona pellucida glycoprotein 3