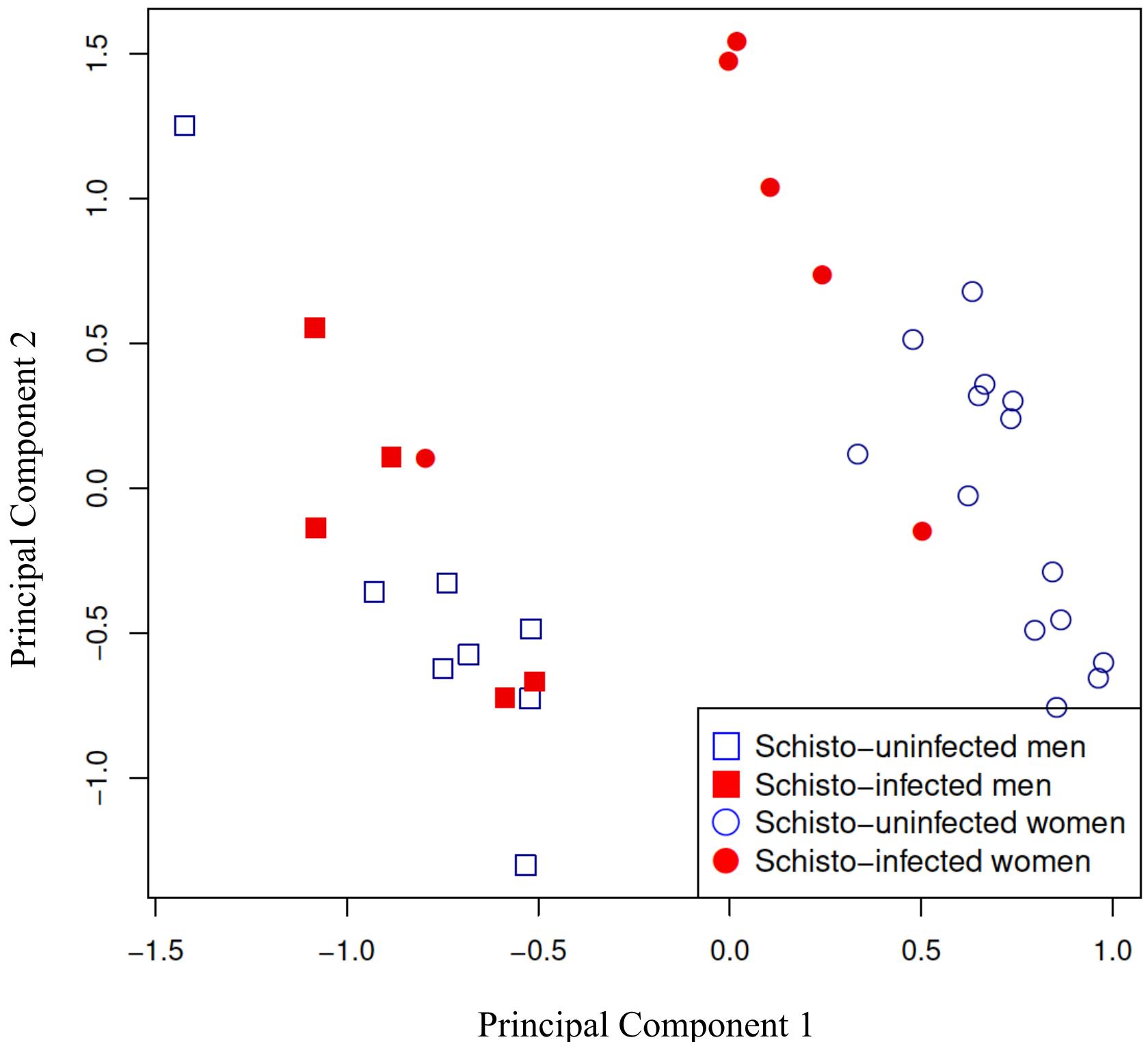


## Supplemental Figure 1



**Supplemental Figure 1. Multi-dimensional scaling plots of two-dimensional projection of differential gene expression, by sex and *S. haematobium* infection status.** This multi-dimensional scaling plot places samples on a two-dimensional scatterplot such that distances on the plot approximate the typical  $\log_2$  counts between samples. The two axes, principal component 1 and 2, represent different weighted sums of genes. PC1 and PC2 provide the best 2-dimensional summary (out of all possible combinations of weighted sums) in approximating between-sample differences in gene expression across the whole genome. The plot depicts the clear demarcation in gene expression between men (squares) and women (circles). An additional difference is noted between those with *S. haematobium* infection (filled shapes) versus those negative for schistosome infection (open shapes).

**Supplemental Table 1. The 20 statistically significant genes with greatest magnitude fold-change between those with or without *S. haematobium* infection, adjusted for sex as a covariate.**

<b>Gene Name</b>	<b>NCBI Gene ID</b>	<b>Gene Function</b>	<b>Log<sub>2</sub> Fold-Change</b>	<b>Adjusted P-value</b>
Neuritin 1	NRN1	Neuron differentiation and plasticity	+1.0	0.0027
Integrin subunit alpha 7	ITGA7	Cell-cell and cell-matrix interactions; cell migration, morphologic development; differentiation; metastasis	+0.88	0.0027
Podocan	PODN	Inhibition of smooth muscle proliferation and migration after arterial injury	+0.86	0.019
Cytochrome C oxidase assembly protein	SCO2	ATP production	+0.86	0.019
Apical junction component 1 homolog	AJM1 (C9orf172)	Unknown	+0.85	0.023
Uroplakin 3A	UPK3A	Transmembrane protein that forms complexes on apical surface of bladder epithelium	+0.83	0.028
TEN1-CDK3 readthrough	TEN1-CDK3	Read-through transcript between TEN1 and CDK3 genes	+0.83	0.019
C-type lectin domain family 1 member A	CLEC1A	Cell adhesion, cell-cell signaling, possibly regulating dendritic cell function	+0.82	0.012
Glutamate ionotropic receptor NMDA type subunit 3B	GRIN3B	Excitatory glycine receptor found primarily in motor neurons	+0.80	0.028
Zinc finger protein 703	ZNF703	May facilitate tumor growth and metastasis	+0.80	0.028
CD300 molecule like family member g	CD300LG	Cell surface glycoprotein containing an immunoglobulin (Ig) V-like domain	+0.80	0.023
SRY-box 15	SOX15	Transcriptional regulator, including during embryonic development	+0.79	0.019
Calcium voltage-gated channel	CACNA1A	Subunit of a voltage-dependent calcium channel expressed	+0.79	0.028

subunit alpha 1A		predominantly in neuronal tissue		
NDRG family member 4	NDRG4	Cytoplasmic protein required for cell cycle progression and survival in astrocytes and regulation of mitotic signaling in vascular smooth muscle cells	+0.78	0.028
FH2 domain containing 1	FHDC1	Unknown	+0.77	0.028
Ankyrin repeat domain 9	ANKRD9	Unknown	+0.76	0.030
Translocator protein 2	TSPO2	Unknown; highly expressed in bone marrow	+0.76	0.030
Solute carrier family 1 member 7	SLC1A7	Unknown	+0.75	0.031
Achaete-scute family bHLH transcription factor 2	ASCL2	Activates transcription and involved in determination of neuronal precursors in peripheral and central nervous systems	+0.75	0.028
Protein tyrosine phosphatase receptor type K	PTPRK	Signaling molecule that regulates cell growth, differentiation, mitotic cycle, and oncogenic transformation	-0.75	0.023

\*Fold changes are expressed as *S. haematobium*-infected versus uninfected, with a positive fold-change representing increased expression in the *S. haematobium*-infected group.

**Supplemental Table 2. Primer-probe pairs used for qRT-PCR.**

<b>Gene Name</b>	<b>Gene ID</b>	<b>TaqMan® Assay ID</b>
mindbomb ubiquitin ligase	MIB2	Hs00373082_m1
neuralized E3 ubiquitin protein ligase	NEURL1	Hs00410191_g1
heat shock transcription factor 2	HSF2	Hs00988308_g1
elongator acetyltransferase complex subunit 2	ELP2	Hs00217448_m1
WD repeat domain 82	WDR82	Hs00742569_s1
histone deacetylase 9	HDAC9	Hs01081558_m1
bcl2 apoptosis regulator	BCL2	Hs00608023_m1
caspase 6	CASP6	Hs00154250_m1
GAPDH housekeeping	GAPDH	Hs03929097_g1
18S rRNA housekeeping	18S	Hs99999901_s1
Beta actin housekeeping	ACTB	Hs99999903_m1