Table S2. Unique variants in lncRNAs associated with mitochondrial dynamics identified in asthenozoospermic men after filtering. Variants shared between two subcategories of male infertility are marked with double asterisks (**), while those common to all three subcategories are marked with triple asterisks (***).

Variant	Allele	Gene Name	Ensembl ID
rs139645979***	A	*HOTAIR*	ENSG00000228630
rs35040664	A	*MEG3*	ENSG00000214548
rs117671229	T	*MEG3*	ENSG00000214548
rs145857832	T	*MEG3*	ENSG00000214548
rs79796477	C	*MEG3*	ENSG00000214548
rs558040978	A	*MEG3*	ENSG00000214548
rs141440721	T	*MEG3*	ENSG00000214548
rs79302727	G	*MEG3*	ENSG00000214548
rs72698763	G	*MEG3*	ENSG00000214548
rs77508107**	A	*MEG3*	ENSG00000214548
rs79315403	G	*GAS5*	ENSG00000234741
rs144730930	AATAA	*HOTTIP*	ENSG00000243766
rs114323395	A	*PVT1*	ENSG00000249859
rs1293520072***	T	*PVT1*	ENSG00000249859
rs757197012	AAAGAAAGAAAGAAAGAAAGAAAGAAA	*PVT1*	ENSG00000249859
rs117549407	A	*PVT1*	ENSG00000249859
rs118184290	G	*PVT1*	ENSG00000249859
rs149614373	G	*PVT1*	ENSG00000249859
rs534630618	A	*PVT1*	ENSG00000249859
rs62512808***	A	*PVT1*	ENSG00000249859
rs62512840***	G	*PVT1*	ENSG00000249859
rs1157889887	AAAAAAAA	*PVT1*	ENSG00000249859
rs188541206	A	*PVT1*	ENSG00000249859
rs201921302	AG	*PVT1*	ENSG00000249859
rs16902565	C	*PVT1*	ENSG00000249859
rs569594741	T	*PVT1*	ENSG00000249859
rs117362020***	A	*PVT1*	ENSG00000249859
rs17382616**	G	*PVT1*	ENSG00000249859
rs79957048**	C	*PVT1*	ENSG00000249859
rs1042291365	G	*ANRIL*	ENSG00000240498
rs548840655	A	*ANRIL*	ENSG00000240498
rs61743293***	T	*ANRIL*	ENSG00000240498
rs4977754***	C	*ANRIL*	ENSG00000240498

rs573214899	T	*ANRIL*	ENSG00000240498
rs879668840	-	*ANRIL*	ENSG00000240498