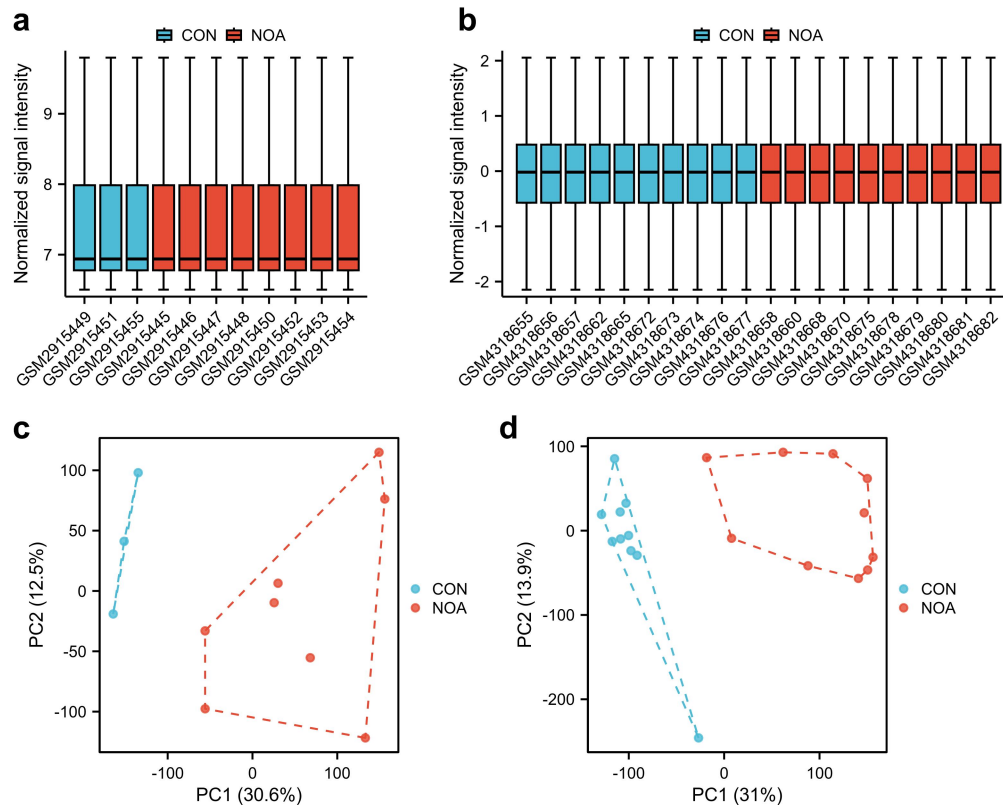
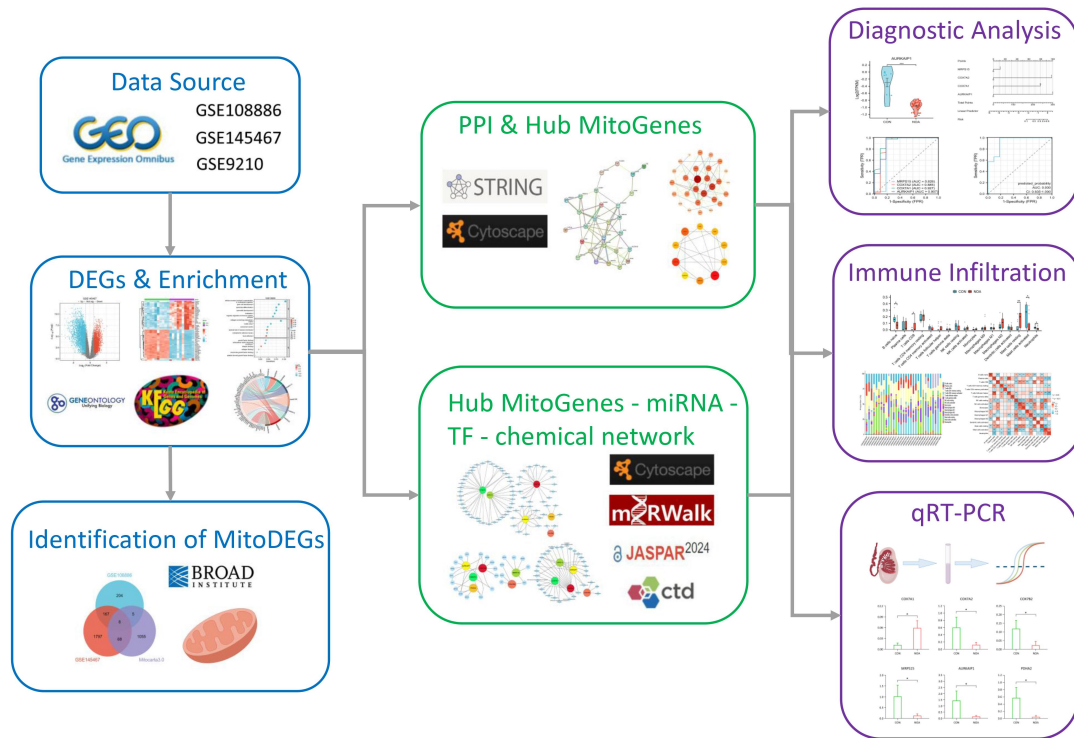


Integrative bioinformatics analyses of mitochondrial dysfunction-related genes in human non-obstructive azoospermia



Supplementary Fig. S1. Box plots and Principal Component Analysis of samples in GSE108886 and GSE145467. In the box plots for GSE 108886 (**a**) and GSE145467 (**b**), the x-axis represented the sample symbol and the y-axis represented the normalized gene expression value. In the Principal Component Analysis for GSE108886 (**c**) and GSE145467 (**d**), the x-axis and y-axis represented Principal Component 1 and Principal Component 2, respectively. And the distances between the points reflected the differences among samples. CON, control; NOA, non-obstructive azoospermia.



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15 **Supplementary Fig. S2.** The workflow chart of data processing, analysis and

16 validation.

17 **Supplementary Table S1.** Demographic and clinical characteristics between NOA
18 and OA patients.

Characteristics	NOA (n=3)	OA (n=3)	<i>P</i> value
Age (year)	31.67±2.40	33.33±6.01	0.809
BMI (Kg/m ²)	23.35±1.66	23.89±1.11	0.798
FSH (mIU/ml)	27.34±0.90	6.82±3.10	0.003
INB (pg/ml)	37.88±5.22	87.77±5.96	0.003
Testosterone (ng/ml)	3.45±0.33	4.52±0.95	0.038
Mean testicular volume (ml)	8.83±0.72	17.5±1.44	0.006
NAG (mU/ejaculate)	31.50±1.36	4.84±2.58	<0.001
Fructose (μmol/ejaculate)	32.83±6.16	37.43±7.64	0.664

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20 Data are presented as mean ± standard error. NOA: non-obstructive azoospermia; OA:
21 obstructive azoospermia; FSH: follicle-stimulating hormone; INH-B: inhibin B; NAG:
22 neural α-glucosidase.

23 **Supplementary Table S2.** Summary of key information of datasets used in the study.

GSE Accession	Platform	Organism	Sample	Type	Sample size	
					Control	NOA
GSE108886	GPL10558	Homo sapiens	Testis tissue	mRNA	3	8
GSE145467	GPL4133	Homo sapiens	Testis tissue	mRNA	10	10
GSE9210	GPL887	Homo sapiens	Testis tissue	mRNA	20	20

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