

**Supplementary Table 6. The molecular functions of hub genes.**

Age groups	Module	Hub genes	Connectivity	Description	KEGG class
0-10 years old	brown	ARPC2	16.766	actin related protein 2/3 complex subunit 2	Human Diseases;Cellular Processes; Organismal Systems
		ARPC5	18.201	actin related protein 2/3 complex subunit 5	Human Diseases;Cellular Processes; Organismal Systems
		DDX39B	49.029	DEXD-box helicase 39B	Genetic Information Processing
		HNRNPK	64.876	heterogeneous nuclear ribonucleoprotein K	Human Diseases; Genetic Information Processing
		HNRNPA2B1	66.056	heterogeneous nuclear ribonucleoprotein A2/B1	-
11-20 years old	black	EEF2	69.684	eukaryotic translation elongation factor 2	Organismal Systems;Environmental Information Processing
		UBA52	54.320	ubiquitin A-52 residue ribosomal protein fusion product 1	Genetic Information Processing
		RPS27A	54.320	ribosomal protein S27a	Genetic Information Processing
		UBB	54.320	ubiquitin B	Human Diseases;Cellular Processes
		UBC	54.320	ubiquitin C	Organismal Systems
		ADH1A	65.236	alcohol dehydrogenase 1A (class I), alpha polypeptide	Metabolism;Human Diseases
		ADH1B	65.236	alcohol dehydrogenase 1B (class I), beta polypeptide	Metabolism;Human Diseases
		51-60 years old	green	ARPC3	22.205
ARPC4	24.819			actin related protein 2/3 complex subunit 4	Human Diseases;Cellular Processes;Organismal Systems
PGD	8.834			phosphogluconate dehydrogenase	Metabolism
TALDO1	4.664			transaldolase 1	Metabolism
ACTB	25.966			actin beta	Human Diseases;Organismal Systems;Cellular Processes;Environmental Information Processing
ACTC1	57.476			actin alpha cardiac muscle 1	Organismal Systems;Human Diseases
ACTBL2	52.264			actin beta like 2	-
ACTC1	57.476			actin alpha cardiac muscle 1	Organismal Systems;Human Diseases
71-80 years old	blue	COL1A1	16.750	collagen type I alpha 1 chain	Human Diseases;Environmental Information Processing;Cellular Processes;Organismal Systems
		COL1A2	90.917	collagen type I alpha 2 chain	Human Diseases; Environmental Information Processing; Cellular Processes; Organismal Systems
		CALR	14.716	calreticulin	Human Diseases; Genetic Information Processing; Cellular Processes; Organismal Systems
		HSPA5	13.575	heat shock protein family A (Hsp70) member 5	Genetic Information Processing; Organismal Systems; Human Diseases; Genetic Information Processing
		AHSG	72.648	alpha 2-HS glycoprotein	-
81-90 years old	red	APOA1	48.668	apolipoprotein A1	Organismal Systems; Human Diseases
		FGA	45.072	fibrinogen alpha chain	Organismal Systems
		F2	50.781	coagulation factor II, thrombin	Human Diseases; Environmental Information Processing; Cellular Processes; Organismal Systems
		FGG	48.344	fibrinogen gamma chain	Organismal Systems; Human Diseases
		ITIH2	132.353	inter-alpha-trypsin inhibitor heavy chain 2	-
		SERPINC1	58.881	serpin family C member 1	Organismal Systems
		APOA2	48.962	apolipoprotein A2	Organismal Systems
		APOM	28.989	apolipoprotein M	-
91-100 years old	turquoise	FGB	45.765	fibrinogen beta chain	Organismal Systems
		C1QB	28.621	complement C1q B chain	Human Diseases; Organismal Systems

VSIG4	11.071	V-set and immunoglobulin domain containing 4	Organismal Systems
EEF1B2	46.912	eukaryotic translation elongation factor 1 beta 2	-
F2	50.781	coagulation factor II, thrombin	Human Diseases; Environmental Information Processing; Cellular Processes; Organismal Systems
TPT1	202.100	tumor protein, translationally-controlled 1	-
FETUB	19.827	fetuin B	-

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