

Article

Circulating Inflammatory miRNAs Associated with Parkinson's Disease Pathophysiology

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Supplementary Materials

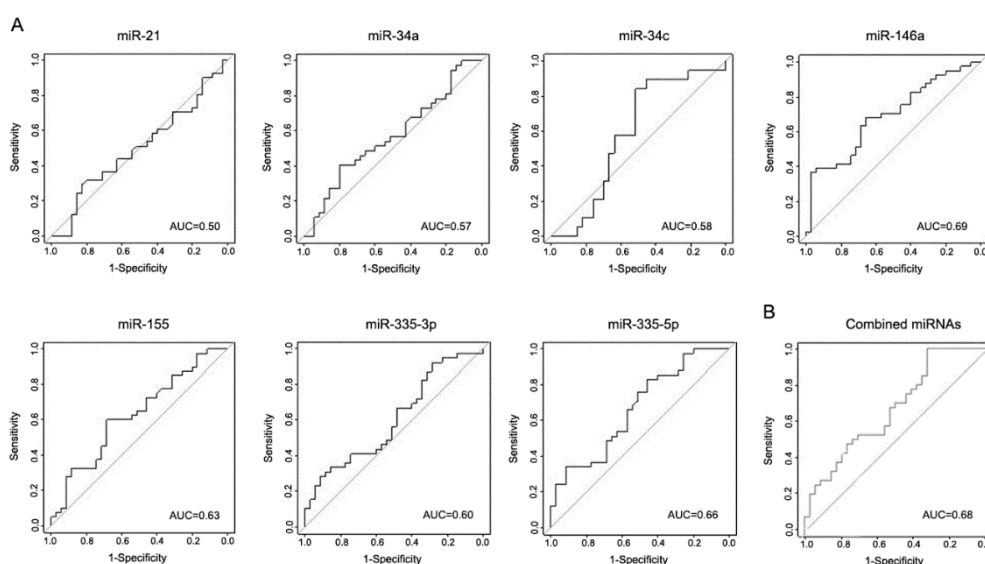


Figure 1. (A) ROC curves of miRNAs in discovery and validation cohorts, discriminating between LRRK2-PD patients and controls. (B) ROC curves of models created from binary logistic regression to improve discrimination between the two groups. AUC values are indicated in each plot.

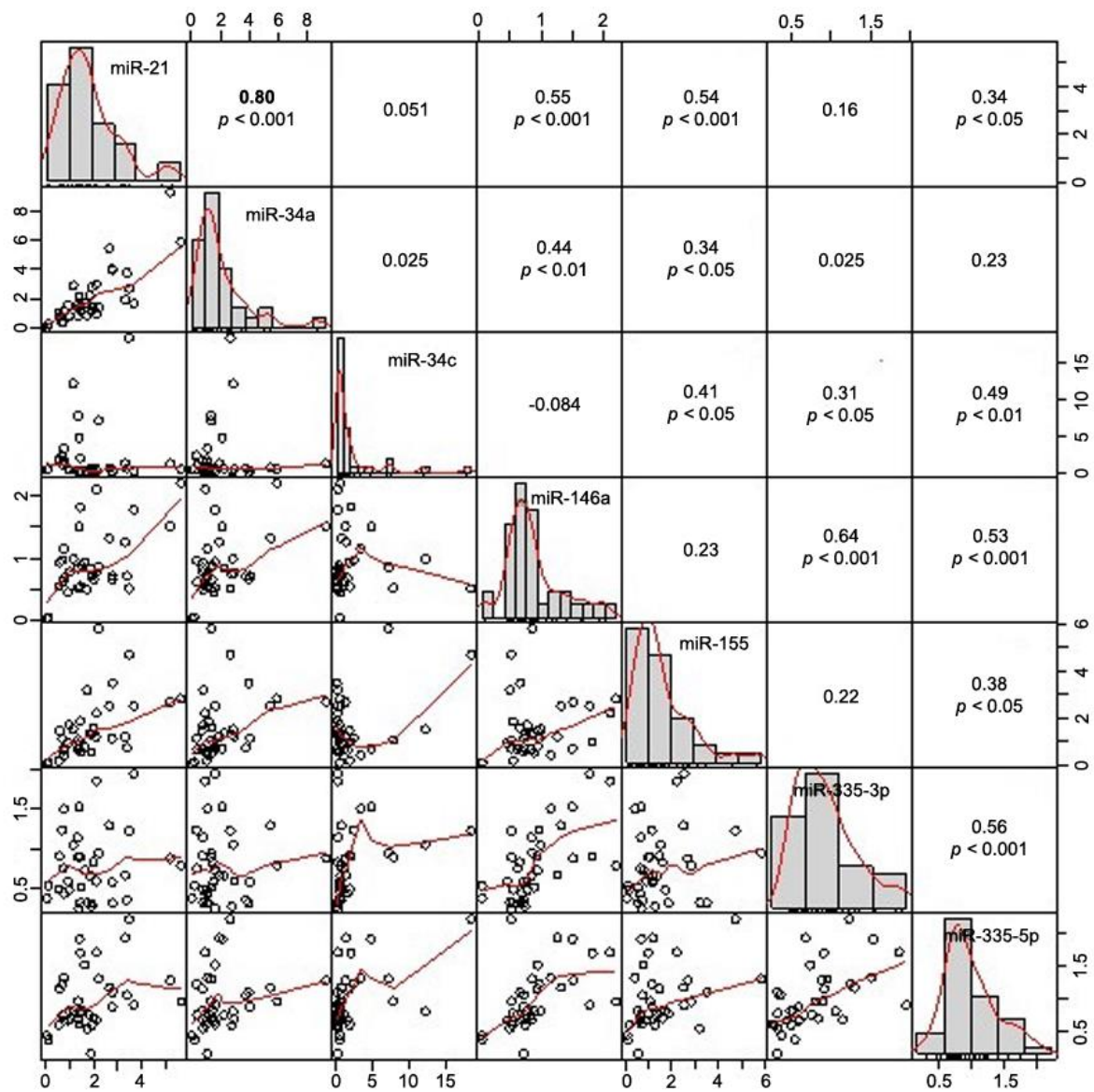


Figure 2. Correlation analysis of all miRNAs among iPD patients and healthy control groups in the validation cohort. Statistically significant correlation ($p < 0.05$) and Spearman's rank correlation coefficient values are indicated in the graphs.

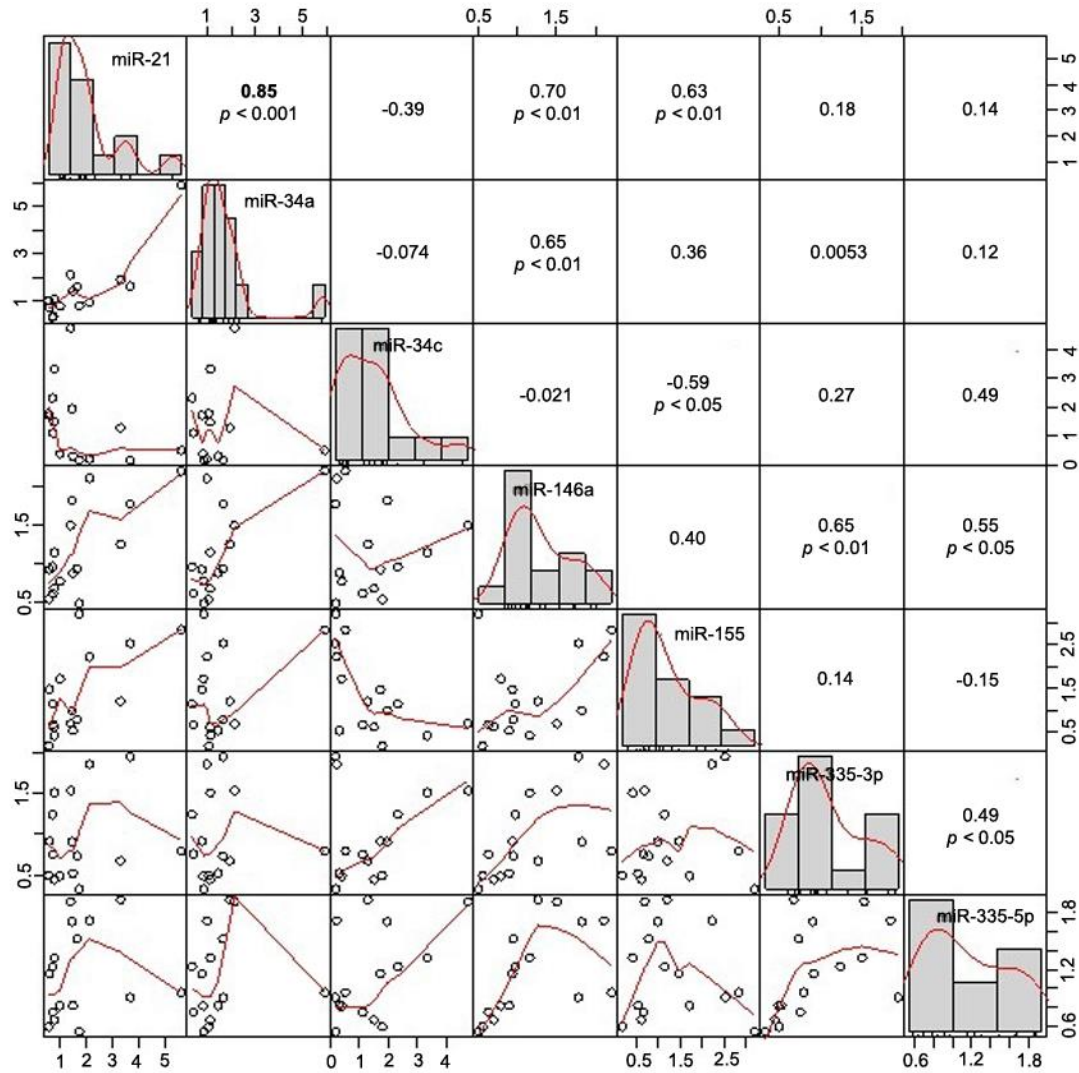


Figure 3. Correlation analysis of all miRNAs among iPD patients and healthy control groups in discovery and validation cohorts. Statistically significant correlation ($p < 0.05$) and Spearman's rank correlation coefficient values are indicated in the graphs.

Table 1. Correlation analysis between miRNA expression and clinical parameters in discovery and validation cohorts of iPD patients. Correlation coefficient is indicated in the table.

	iPD Patients					
	Tremor at onset	No tremor at onset	History of dyskinesia	No history of dyskinesia	History of motor fluctuation	No history of motor fluctuation
miR-21	1.85	2.16	1.80	2.20	1.96	2.14
miR-34a	2.05	3.13	2.60	2.60	2.89	2.11
miR-34c	4.36	0.42	2.00	2.50	1.39	3.90
miR-146a	0.62	0.80	0.80	0.60	0.760	0.620
miR-155	1.910	1.450	1.70	1.70	1.550	2.060
miR-335-3p	0.640	0.720	0.900	0.600	0.710	0.590
miR-335-5p	0.800	0.920	0.800	0.900	0.820	0.920

Table 2. Correlation analysis between miRNA expression and clinical parameters of iPD and LRRK2-PD patients in discovery and validation cohorts. Correlation coefficient is indicated in the table.

	iPD Patients				LRRK2-PD Patients			
	Age	Age at symptom onset	Disease duration	H&Y	Age	Age at symptom onset	Disease duration	H&Y
miR-21	0.178	0.004	0.194	0.237	-0.030	-0.142	0.181	0.114
miR-34a	0.111	-0.065	0.215	0.278	-0.204	-0.344	0.321	-0.035
miR-34c	0.110	0.181	-0.128	-0.120	-0.008	-0.066	0.086	0.073
miR-146a	-0.057	-0.173	0.176	0.211	-0.416	-0.417	0.153	0.147
miR-155	0.234	0.078	0.155	0.025	-0.083	-0.090	0.041	0.106
miR-335-3p	-0.054	-0.105	0.085	0.022	-0.265	-0.131	-0.097	-0.267
miR-335-5p	-0.081	-0.220	0.214	0.006	-0.255	-0.243	0.075	-0.086

H&Y, Hohen and Yahr.