

			Correlations				
Control Variables			UPDRS_III	LSN	RSN	LGP	RGP
Gender & Age	UPDRS_III	Correlation	1.000	.638	.584	.448	.429
		Sig. (2-tailed)	.	.000	.000	.000	.000
		df	0	16557	16557	16557	16557
	LSN	Correlation	.638	1.000	.964	.753	.745
		Sig. (2-tailed)	.000	.	.000	.000	.000
		df	16557	0	16557	16557	16557
	RSN	Correlation	.584	.964	1.000	.752	.748
		Sig. (2-tailed)	.000	.000	.	.000	.000
		df	16557	16557	0	16557	16557
	LGP	Correlation	.448	.753	.752	1.000	.943
		Sig. (2-tailed)	.000	.000	.000	.	.000
		df	16557	16557	16557	0	16557
	RGP	Correlation	.429	.745	.748	.943	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		df	16557	16557	16557	16557	0

Figure S1 Partial correlations between QSM values in the SN and GP and UPDRS-III motor scores in patients with PD. Partial correlation analyses were performed after controlling for age and sex.

			Correlations				
Control Variables			UPDRS_III	fALFF_Putam en_R	fALFF_Putam en_L	fALFF_Thala mus_R	fALFF_Cauda te_R
Gender & Age & FD & Education	UPDRS_III	Correlation	1.000	-.575	-.538	-.468	-.578
		Sig. (2-tailed)	.	.000	.000	.000	.000
		df	0	16555	16555	16555	16555
	fALFF_Putamen_R	Correlation	-.575	1.000	.819	.683	.796
		Sig. (2-tailed)	.000	.	.000	.000	.000
		df	16555	0	16555	16555	16555
	fALFF_Putamen_L	Correlation	-.538	.819	1.000	.659	.687
		Sig. (2-tailed)	.000	.000	.	.000	.000
		df	16555	16555	0	16555	16555
	fALFF_Thalamus_R	Correlation	-.468	.683	.659	1.000	.595
		Sig. (2-tailed)	.000	.000	.000	.	.000
		df	16555	16555	16555	0	16555
	fALFF_Caudate_R	Correlation	-.578	.796	.687	.595	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		df	16555	16555	16555	16555	0

Figure S2 Partial correlations between fALFF values and UPDRS-III motor scores in patients with PD. Partial correlation analyses were performed after controlling for age, sex, years of education, and FD.

		Correlations									
Control Variables		UPDRS_III	ReHo_Caudate_L	ReHo_Putamen_L	ReHo_Pallidum_L	ReHo_Thalamus_L	ReHo_Caudate_R	ReHo_Putamen_R	ReHo_Pallidum_R	ReHo_Thalamus_R	
Gender & Age & FD & Education	UPDRS_III	Correlation	1.000	-.396	-.589	-.469	-.374	-.561	-.627	-.374	-.522
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.000	.000	.000
		df	0	16555	16555	16555	16555	16555	16555	16555	16555
	ReHo_Caudate_L	Correlation	-.396	1.000	.407	.453	.465	.548	.426	.476	.321
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.000	.000	.000
		df	16555	0	16555	16555	16555	16555	16555	16555	16555
	ReHo_Putamen_L	Correlation	-.589	.407	1.000	.488	.379	.721	.787	.365	.597
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000	.000	.000
		df	16555	16555	0	16555	16555	16555	16555	16555	16555
	ReHo_Pallidum_L	Correlation	-.469	.453	.488	1.000	.705	.466	.481	.723	.366
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000	.000	.000
		df	16555	16555	16555	0	16555	16555	16555	16555	16555
	ReHo_Thalamus_L	Correlation	-.374	.465	.379	.705	1.000	.406	.376	.757	.320
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.000	.000	.000
		df	16555	16555	16555	16555	0	16555	16555	16555	16555
	ReHo_Caudate_R	Correlation	-.561	.548	.721	.466	.406	1.000	.715	.443	.654
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.000	.000	.000
		df	16555	16555	16555	16555	16555	0	16555	16555	16555
	ReHo_Putamen_R	Correlation	-.627	.426	.787	.481	.376	.715	1.000	.524	.611
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.	.000	.000
		df	16555	16555	16555	16555	16555	16555	0	16555	16555
	ReHo_Pallidum_R	Correlation	-.374	.476	.365	.723	.757	.443	.524	1.000	.323
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.	.000
		df	16555	16555	16555	16555	16555	16555	16555	0	16555
	ReHo_Thalamus_R	Correlation	-.522	.321	.597	.366	.320	.654	.611	.323	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.
		df	16555	16555	16555	16555	16555	16555	16555	16555	0

Figure S3 Partial correlations between ReHo values and UPDRS-III motor scores in patients with PD. Partial correlation analyses were performed after controlling for age, sex, years of education, and FD.

Correlations					
Control Variables			MMSE	Hippocampus_L	Hippocampus_R
Gender & Age & FD & Education	MMSE	Correlation	1.000	.326	.316
		Sig. (2-tailed)	.	.000	.000
		df	0	16555	16555
	Hippocampus_L	Correlation	.326	1.000	.837
		Sig. (2-tailed)	.000	.	.000
		df	16555	0	16555
	Hippocampus_R	Correlation	.316	.837	1.000
		Sig. (2-tailed)	.000	.000	.
		df	16555	16555	0

Figure S4 Partial correlations between hippocampal ReHo values and MMSE scores in patients with PD. Partial correlation analyses were performed after controlling for age, sex, years of education, and FD.