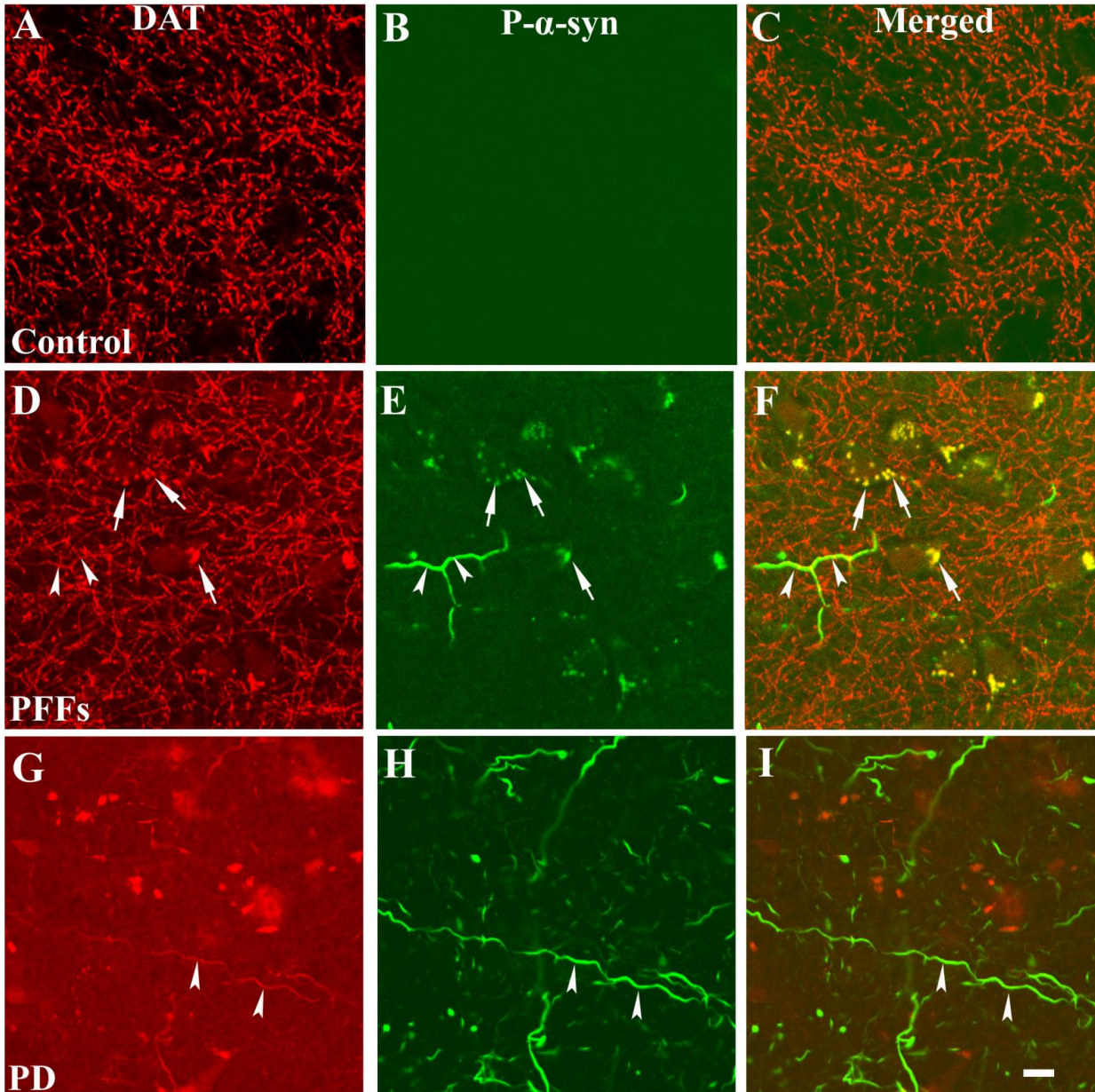


Supplementary Table 1. Standardized uptake value ratios (SUVR) in the left and right striatum, calculated at baseline and at 3, 6, 9, 12, and 15 month data points of all animals injected with PFF participating in the study

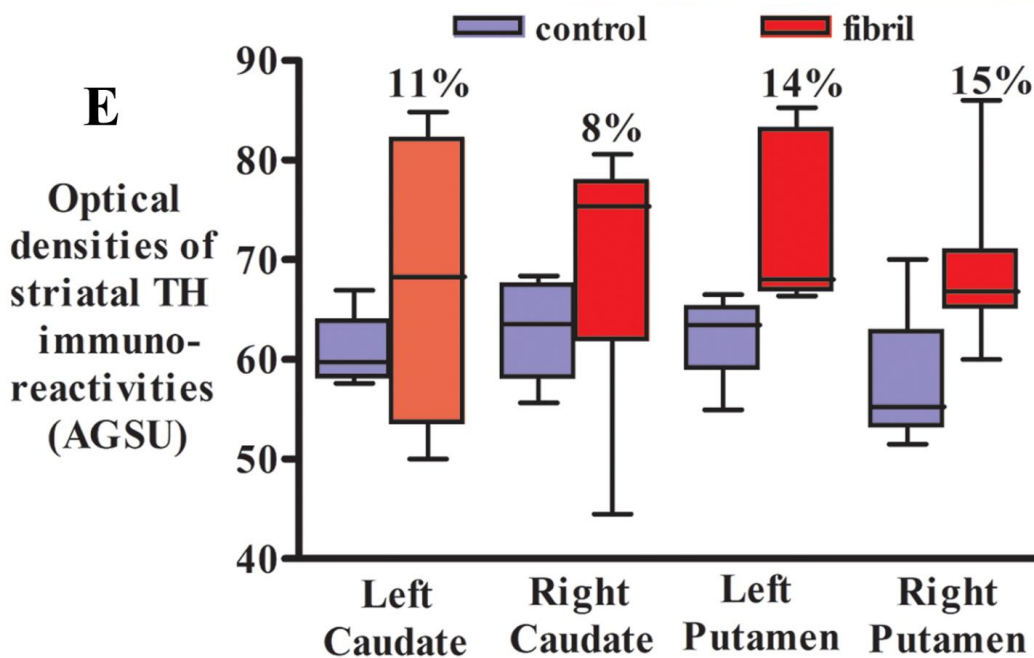
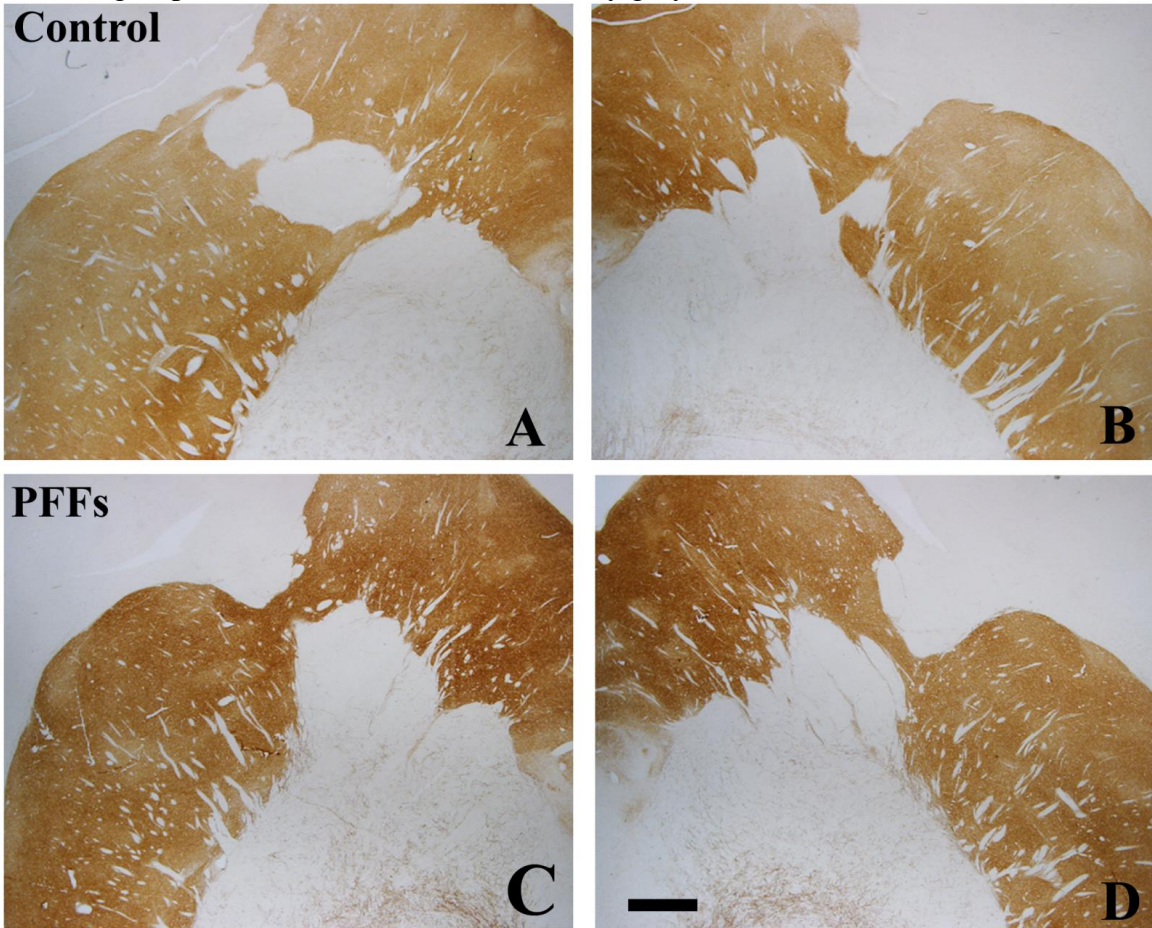
Animal ID	Left Striatum SUVR						Right Striatum SUVR					
	Baseline	3 mo	6 mo	9 mo	12 mo	15 mo	Baseline	3 mo	6 mo	9 mo	12 mo	15 mo
CN 8172	5.58	4.83	4.37	7.68	7.28	6.36	5.79	4.39	4.13	6.99	6.79	6.14
CN 8408	7.88	7.77	15.63	12.58	11.88	10.33	7.06	6.73	14.44	11.57	10.86	9.61
CN 8409	5.89	5.57	9.81	9.59	12.98	NA	5.32	4.91	9.13	8.25	11.67	NA
CN 8410	4.73	5.04	7.18	8.70	7.99	NA	4.68	4.91	7.23	8.11	7.87	NA
CN 8411	7.37	10.37	10.54	15.99	15.20	NA	7.44	9.59	9.09	15.41	14.77	NA
CN 8412	12.14	9.35	8.51	15.76	19.06	14.91	12.92	8.93	7.78	14.10	19.63	15.35
CN 8413	8.30	9.91	15.47	12.94	17.04	NA	7.96	9.27	15.23	11.13	15.13	NA
CN 8414	6.36	7.29	5.22	7.45	9.61	8.86	5.91	7.00	4.97	7.29	8.83	8.21
CN 8415	5.51	4.13	NA	NA	NA	NA	5.00	3.60	NA	NA	NA	NA

NA = not available

Supplementary Fig. 1. Laser confocal microscopic images of putamen from monkeys receiving the sham surgery (Control; A-C), PFFs (D-F) and Parkinson's disease (PD; G-I) illustrating dopamine transporter (DAT; red; A, D, G), phosphorylated α -syn (P- α -syn; green; B, E, H), and the colocalization (merged; C, F, I). Note that P- α -syn labeling dots (arrows, E) and fibers (arrowheads, E) were localized with DAT (D, F) in monkeys received α -syn PFFS. In PD, DAT and P- α -syn were coexisted in remaining striatal dopaminergic fibers (arrowheads; G-I). There was undetected P- α -syn in monkey brain with sham surgery (B). Scale bar in I = 10 μ m (applies to all).



Supplementary Fig. 2. Microscopy images show striatal tyrosine hydroxylase (TH) staining in monkeys receiving the sham surgery (Control; A, B) and α -syn PFFs(C, D). The TH staining was homogenous in both monkeys with sham surgery (A, B) and PFFS delivery (C, D). Intensive TH staining displayed slight higher in monkeys receiving PFFS (C, D) than sham surgery (A, B). Scale bar in D = 830 μ m (applies to all). Quantitative optical density measurement (E) revealed further that the optical density of TH staining was slight higher in striatum of monkeys receiving the PFFs relative to sham surgery but there was no statistic significant difference between groups (E; $P > 0.05$). AGSU = arbitrary gray scale units.



Supplementary Fig. 3. Laser confocal microscopic images of putamen from monkeys receiving sham surgery (Control; A-C) and the α -syn PFFs (D-F) illustrating DARPP-32 (green; A, D), phosphorylated α -syn (P- α -syn; red; B, E), and the co-localization (merged; C and F). Note that DARPP32 immunofluorescence intensity was severely diminished (arrows, D, F) in the neurons with p- α -syn immunoreactive inclusions (arrows, E) but not in neurons without P- α -syn immunoreactive inclusions in monkeys received α -syn PFFs. Scale bar in F =60 μ m (applies to all). Quantitative measurement further revealed that the optical densities of DARPP32 immunoreactivities was significantly decreased in the neurons with P- α -syn immunopositive inclusions (P- α -syn⁺; ** $P < 0.01$) but not in neurons with P- α -syn immunonegative (P- α -syn⁻; $P > 0.05$) as compared with monkeys received sham surgery (G). AFU = arbitrary fluorescence units.

