**Table S1.** Baseline characteristics of studies investigating the association of the *ADORA2A rs5760423* and *CYP1A2 rs762551* polymorphisms in PD patients and controls.

| | | | | | Cases | | | Controls | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Author (Year)** | **Population** | **ADORA2A rs5760423/CYP1A2 rs762551** | **Including patients positive family history/HWE test** | **Diagnosis Assessment** | **Mean age±SD/ Age of onset±SD** | **n** | **Sex Female/ male** | **Mean Age±SD** | **n** | **Sex Female/ male** | **Main Results & Comments** |
| Tan et al., (2007) [1] | - | no/yes | -/cases and controls | UK Brain Bank criteria | 69.5 ± 10.3/63.5 ± 11.0 years | 418 | 175/243 | 63.6 ± 11.3 years | 468 | 241/227 | Negative |
| Palacios et al., (2010) [2] | >90% Caucasian | no/yes | -/yes | Hughes AJ, Daniel SE, Lees AJ. Improved accuracy of clinical diagnosis of Lewy body Parkinson's disease. Neurology 2001;57(8):1497e9 | 48 (female), 60 (male)/- | 298 | 159/139 | 48 (female), 60 (male) | 1294 | 724/561 | Positive |
| Popat et al., (2011) [3] | mixed | no/yes | yes/controls | CAPIT/Hughes criteria Neurology clinic record review, neurologic exam and diagnosis confirmed by study neurologist | 64.9 years/- | 1325 | 61.1 % male | 68.4 years | 1735 | 65.4% male | Negative |
| Chuang et al., (2016) [4] | Non-Hispanic whites Danish | yes /yes | yes/controls | UK Brain Bank criteria  (Hughes AJ, Daniel SE, Kilford L, et al. Accuracy of clinical diagnosis of idiopathic Parkinson's disease: a clinicopathological study of 100 cases. J Neurol Neurosurg Psychiatry. 1992;55(3):181–184.)  Gelb DJ, Oliver E, Gilman S. Diagnostic criteria for Parkinson disease. Arch Neurol. 1999;56(1):33–39 | 61.1±9.5/- | 1556 | 59.9 % male | 61.3±9.7 years | 1606 | 60.7% male | Marginal Associations |
| Kim et al., (2018) [5] | Derived from 2 large prospective cohorts (NHS, HPFS) | no/yes | -/yes | Based on medical records were requested from PD cases (after 2003 records reviewed by a neurologist specializing in movement disorders) | - | - | - | - | - | - | CYP1A2 rs762551 was associated with an increased risk in the NHS, but not in the HPFS |

PD, Parkinson's disease; ADORA2A, Adenosine Receptor Subtype A2a; CYP1A2, Cytochrome P450 1A2; NHS, Nurses' Health Study; HPFS, the Health Professionals Follow-up Study; OR, odds ratio; CI, confidence interval.

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