Supplementary File 1: Research Checklist. MOOSE Checklist for Meta-analyses of Observational Studies

| Item No | Recommendation | Reported on Page No | | | |
|---|--|--|--|--|--|
| Reporting of background should include | | | | | |
| 1 | Problem definition | 4-5 | | | |
| 2 | Hypothesis statement | 4-5 | | | |
| 3 | Description of study outcome(s) | 4-5 | | | |
| 4 | Type of exposure or intervention used | 5-6 | | | |
| 5 | Type of study designs used | 5-6 | | | |
| 6 | Study population | 5-6 | | | |
| Reporting of search strategy should include | | | | | |
| 7 | Qualifications of searchers (eg, librarians and investigators) | 6 | | | |
| 8 | Search strategy, including time period included in the synthesis and key words | 5,6,Supplementary file 2 | | | |
| 9 | Effort to include all available studies, including contact with authors | 5,6 | | | |
| 10 | Databases and registries searched | 6 | | | |
| 11 | Search software used, name and version, including special features used (eg, explosion) | 6 | | | |
| 12 | Use of hand searching (eg, reference lists of obtained articles) | - | | | |
| 13 | List of citations located and those excluded, including justification | 5,6, Supplementary files 3,4, Figure 1 | | | |
| 14 | Method of addressing articles published in languages other than English | - | | | |
| 15 | Method of handling abstracts and unpublished studies | - | | | |
| 16 | Description of any contact with authors | - | | | |
| Reporting of methods should include | | | | | |
| 17 | Description of relevance or appropriateness of studies assembled for assessing the hypothesis to be tested | 6,Supplementary files 3,4 | | | |
| 18 | Rationale for the selection and coding of data (eg, sound clinical principles or convenience) | 6,Supplementary files 3,4 | | | |
| 19 | Documentation of how data were classified and coded (eg, multiple raters, blinding and interrater reliability) | 6,Supplementary files 3,4 | | | |
| 20 | Assessment of confounding (eg, comparability of cases and controls in studies where appropriate) | Supplementary files 3,4 | | | |
| 21 | Assessment of study quality, including blinding of quality assessors, stratification or regression on possible predictors of study results | Supplementary files 3,4 | | | |
| 22 | Assessment of heterogeneity | Supplementary file 5 | | | |
| 23 | Description of statistical methods (eg, complete description of fixed or random effects models, justification of whether the chosen models account for predictors of study results, dose-response models, or cumulative meta-analysis) in sufficient detail to be replicated | 7,8 | | | |
| 24 | Provision of appropriate tables and graphics | Tables 1-5, Figure 1, Supplementary file 5 | | | |
| Reporting o | f results should include | | | | |

| 25 | Graphic summarizing individual study estimates and overall estimate | Tables 1-5 |
|----|---|-------------------------|
| 26 | Table giving descriptive information for each study included | Supplementary files 3,4 |
| 27 | Results of sensitivity testing (eg, subgroup analysis) | Tables 1-5, |
| 28 | Indication of statistical uncertainty of findings | Supplementary file 5 |

| Item No | Recommendation | Reported on Page No | | |
|---|---|--------------------------------|--|--|
| Reporting of discussion should include | | | | |
| 29 | Quantitative assessment of bias (eg, publication bias) | 8,9 Supplementary file 5 | | |
| 30 | Justification for exclusion (eg, exclusion of non-English language citations) | 8, 10-14, Figure 1 | | |
| 31 | Assessment of quality of included studies | Supplementary files 3,4 | | |
| Reporting of conclusions should include | | | | |
| 32 | Consideration of alternative explanations for observed results | 10-14 | | |
| 33 | Generalization of the conclusions (ie, appropriate for the data presented and within the domain of the literature review) | 10-14 | | |
| 34 | Guidelines for future research | 14 | | |
| 35 | Disclosure of funding source | 16-17 | | |

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Genetic Parkinsonism and Cancer: A Systematic Review and Meta-Analysis

Andrea Sturchio, Alok K. Dwivedi, Joaquin A. Vizcarra, Martina Chirra, Elizabeth G. Keeling, Ignacio F. Mata, Marcelo A. Kauffman, Manoj K. Pandey, Giandomenico Roviello, Cristoforo Comi, Maurizio Versino, Luca Marsili*, Alberto J. Espay.

*Gardner Family Center for Parkinson's Disease and Movement Disorders, Department of Neurology, University of Cincinnati, Cincinnati, OH; marsilla@ucmail.uc.edu.