need for additional well-characterized antibodies to Lrrk2 to further study the biology of this enzyme.

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Low Incidence for Predementia and Dementia Syndromes in a Brain Imaging Study

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Jagust and colleagues[1] performed positron emission tomography using [^{18}F]fluorodeoxyglucose and structural magnetic resonance imaging at baseline in 60 cognitively normal community-dwelling older subjects who were part of a longitudinal cohort study Sacramento Area Latino Study on Aging (SALSA) project. Subjects were followed for a mean of 3.8 years, and only six subjects developed incident dementia or cognitive impairment (converters). The results of Jagust and colleagues' study[1] indicate that temporal and parietal glucose metabolism predict decline in global cognitive function, and medial temporal brain volumes predict memory decline in normal older people, suggesting detection of preclinical Alzheimer's disease pathology. The crude incidence rate for cognitive impairment with no dementia and dementia was 26 per 1,000 person-years.[1] The authors reported in the Discussion section of their article[1] that other population-based studies found similar incidence rates of cognitive impairment.[2–4] Currently, we are aware of only a few incidence studies on predementia syndromes applying mild cognitive impairment (MCI) and not cognitive impairment with no dementia criteria.[5] In the Italian Longitudinal Study on Aging (ILSA), a population-based study with a 3.5-year follow-up, involving a total of 2,963 individuals, aged 65 to 84 years, we found an estimated incidence rate of 21.5 per 1,000 person-years for MCI, which is therefore higher than the incidence rate of MCI and MCI-modified (ie, 8.5/1,000 and 12.2/1,000 person-years) found in the Leipzig Longitudinal Study of the Aged (LEILA75+ study).[5] In the Personnes Agees Quid (PAQUID) study, a French population-based cohort of 3,777 elderly people, aged 65 years and older, the global incidence rate of MCI was 9.9/1,000 person-years.[5] Finally, in a Finnish population-based study, the global incidence rate of MCI was 25.94/1,000 person-years.[5] But these population-based studies reported the incidence rates for MCI, and not for conversion, that is, normal subjects who progressed to cognitive impairment with no dementia ($n = 5$) and Alzheimer's disease ($n = 1$).[1] In fact, in the ILSA, the incidence rate for conversion (MCI plus dementia) was 34 per 1,000 person-years, which is therefore higher than the incidence rate of converters in the SALSA project. The other two population-based studies cited in the Discussion section of Jagust and colleagues' article[1] reported only the crude overall incidence rates for all dementias with Clinical Dementia Rating scale ≥ 0.5 (25.5/1,000 person-years)[3] and the incidence rate for dementia and Alzheimer's disease (25.5/1,000 and 16.8/1,000 person-years, respectively).[4] In conclusion, we suggest that the low incidence rates for conversion in the SALSA project could limit, as acknowledged in the report by the authors, the potential ability to generalize the interesting results of the study.

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Reply

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We thank Dr Panza and colleagues for an insightful reading of our article concerning the ability of [^{18}F]-

fluorodeoxyglucose positron emission tomography scanning to predict cognitive decline in a group of subjects selected from the Sacramento Area Latino Study on Aging (SALSA) cohort.[1] We agree that there are few other studies with which to compare our own results. The published articles cited by Dr Panza include estimates of incidence ranging from 8.5 to 26 per 1,000 person-years for mild cognitive impairment (MCI) syndromes. We also agree that the most appropriate figure for comparison with our own data would be incidence of MCI or cognitive impairment/no dementia combined with incidence of dementia, as indeed we reported the "conversion" from normal to both of these states. The authors cite their own data from the Italian Longitudinal Study on Aging in this regard as 34 per 1,000 person-years. Although we did quote published incidence rates for dementia from two population-based studies, it is also worth noting that published dementia incidence rates vary widely, from 10.7 to more than 30 per 1,000 person-years.[2] Given the large variability in methodology, populations, and the difficulties in establishing and differentiating MCI, cognitive impairment/no dementia, Alzheimer's disease, and other dementias, the threefold differences in estimates of MCI or dementia incidence are not surprising. In this light, we are more impressed with the similarity than the difference of our crude incidence rate of 26 per 1,000 to the figure of 34 per 1,000 person-years that Dr Panza and colleagues reported.

However, our study was not designed to determine the incidence of cognitive impairment/no dementia or dementia. The subjects were a subsample of a larger cohort, may not reflect the incidence in the entire cohort, and are a relatively small group from which to draw firm conclusions about incidence rates. Incident disease or conversion was not an outcome measure in our study, which used cognitive decline as a continuous variable. We presented incidence data to make a simple point: Because the rate of conversion was not unusually high, the subjects were not already in an early stage of dementia. Such an incidence rate would thus bias against finding a predictive value to positron emission tomography imaging, making the tests of our hypotheses more conservative. Although generalizability is always a concern in small samples, we believe that this is the appropriate sort of cohort in which to test the predictive value of imaging.

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Adherence to a Mediterranean Dietary Pattern and Risk of Alzheimer's Disease

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Scarmeas and colleagues[1] reported the results of a community-based study involving 2,258 nondemented individuals in New York, in which adherence to a traditional Mediterranean diet was associated with significant reduction in risk for Alzheimer's disease. These authors reported that the typical dietary pattern of the Mediterranean diet is characterized by high intakes of vegetables, fruits and nuts, legumes, cereals, fish, and monounsaturated fat; relatively low intakes of meat and dairy products; and moderate consumption of alcohol. In fact, higher levels of consumption of olive oil are considered the hallmark of the traditional Mediterranean diet. The use of olive oil now extends beyond the Mediterranean region. In particular, monounsaturated fatty acids, consequent to the high consumption of extra virgin olive oil, represent the most important fat in the Mediterranean diet. Cumulative evidence suggests that extra virgin olive oil may have a role in the protection against cognitive decline, in addition to protection other than against coronary disease and several types of cancer, because of its high levels of monounsaturated fatty acids and polyphenolic compounds.[2,3] However, in Table 1 of Scarmeas and colleagues' article,[1] the median daily intake of monounsaturated fatty acids to saturated fatty acids ratio for individual food categories by Mediterranean diet score tertiles was <1 and in overall about 2.5 times lower than the same value calculated from other studies of the Mediterranean diet.[3,4] Scarmeas and colleagues[1] did not provide any possible explanation for these important differences. In conclusion, Scarmeas and colleagues' study[1] provides another reminder that the preservation of certain dietary and lifestyle traditions may have important health consequences, and that the advantages of the Mediterranean diet are transferable to other populations, but unfortunately one of the hallmarks of this dietary pattern may be not fulfilled in this study population.

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