

Proposal für einen neuen Forschungsantrag im Rahmen des Diet, Body, Brain (DietBB) Konsortiums (BMBF Ausschreibung Kompetenzcluster Ernährungsforschung, Sprecherin U. Nöthlings, Bonn)

Vorbemerkung: Die Bonner AG möchte sich an der o.g. Ausschreibung beteiligen und damit Personalmittel zur Analyse entsprechender AgeCoDe Daten einwerben. Der Rahmen des Antrags ist die Betrachtung von Ernährung und Hirn (v.a. Kognition) über die Lebensspanne (Pränatal bis zum Lebensende), die AgeCoDe Kohorte könnte das Konzept sehr gut ergänzen.

Mediterranean diet, nutrition markers, and risk of cognitive decline in old age

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Entscheidung der TK: Das Proposal wurde in AgeCoDe/AgeQualiDe TK 5 am 10.03.2014 wie vorgelegt genehmigt. Es gibt keine Überschneidungen mit dem Proposal von Sandra Eifflaender-Gorfer. Da die Blutanalysen unter Bonner Schirmherrschaft vorgenommen und im Rahmen der AgeCoDe Fragestellungen ausgewertet werden, sind die unterzeichneten Einverständniserklärungen der Probanden für die angestrebten Auswertungen gültig.

Die Antragsteller werden gebeten die AgeCoDe Study Group über den aktuellen Stand der Anträge und ggf. des Projektes auf dem Laufenden zu halten.

Rationale and background:

Recent studies from the United States, France and Australia have found preliminary evidence of a protective role of adhering to a Mediterranean diet (MeDi) for preventing cognitive decline and dementia, and also for promoting survival in demented patients (Scarmeas N et al. Mediterranean diet and risk for Alzheimer's disease. *Ann Neurol.* 2006;59:912–921, Feart et al., Adherence to a Mediterranean diet, cognitive decline, and risk of dementia. *JAMA.* 2009;302:638–648. Solfrizzi V et al. Mediterranean diet in predementia and dementia syndromes. *Curr Alzheimer Res.* 2011). The protective effect of MeDi seems to be specific, as no such associations were found for another index of healthy eating (Tangney et al. Adherence to a Mediterranean-type dietary pattern and cognitive decline in a community population. *Am J Clin Nutr.* 2011 Mar;93(3):601-7.) Furthermore, positive effects against depression and stroke have been well documented (Psaltopoulou T, Mediterranean diet and stroke, cognitive impairment, depression: A meta-analysis. *Ann Neurol.* 2013 May 30. doi: 10.1002/ana.23944).

Objectives:

To replicate, for the first time, in an elderly representative German sample that MeDi is protective against cognitive decline. Furthermore, to examine risk factors for additive or interactive (with MeDi) effects (in order to develop risk groups for targeted recommendation). Finally, to examine nutrition related biomarkers (HDL, LDL, Folate, Kreatinin) and their relation with MeDi and cognitive decline.

Methods:

The AgeCoDe study used a dietary assessment when the participants were about 80 years on average, with currently five follow ups over 8 years (>200 incident dementia cases). We will examine the association of a MeDi diet score, which can be extracted from the dietary assessment, with (a) risk of concurrent cognitive impairment, (b) risk for future incident dementia, (c) cognitive decline in subjects initially free of dementia and MCI (Growth Curve Modelling), (d) cognitive decline in cases with incident dementia (e) incident stroke and (f) incidence of relevant depressive symptoms (Geriatric Depression Scale). We will also examine the contribution of physical activity, comorbidity and clinical risk factors (e.g. BMI, MCI, Subjective cognitive decline) as possibly moderating effects of diet on cognition in the elderly. Finally, diet-related blood measurements (e.g., lipids, vitamins, folate) will be examined.