Plasma assay promising for diagnosis of early Alzheimer disease

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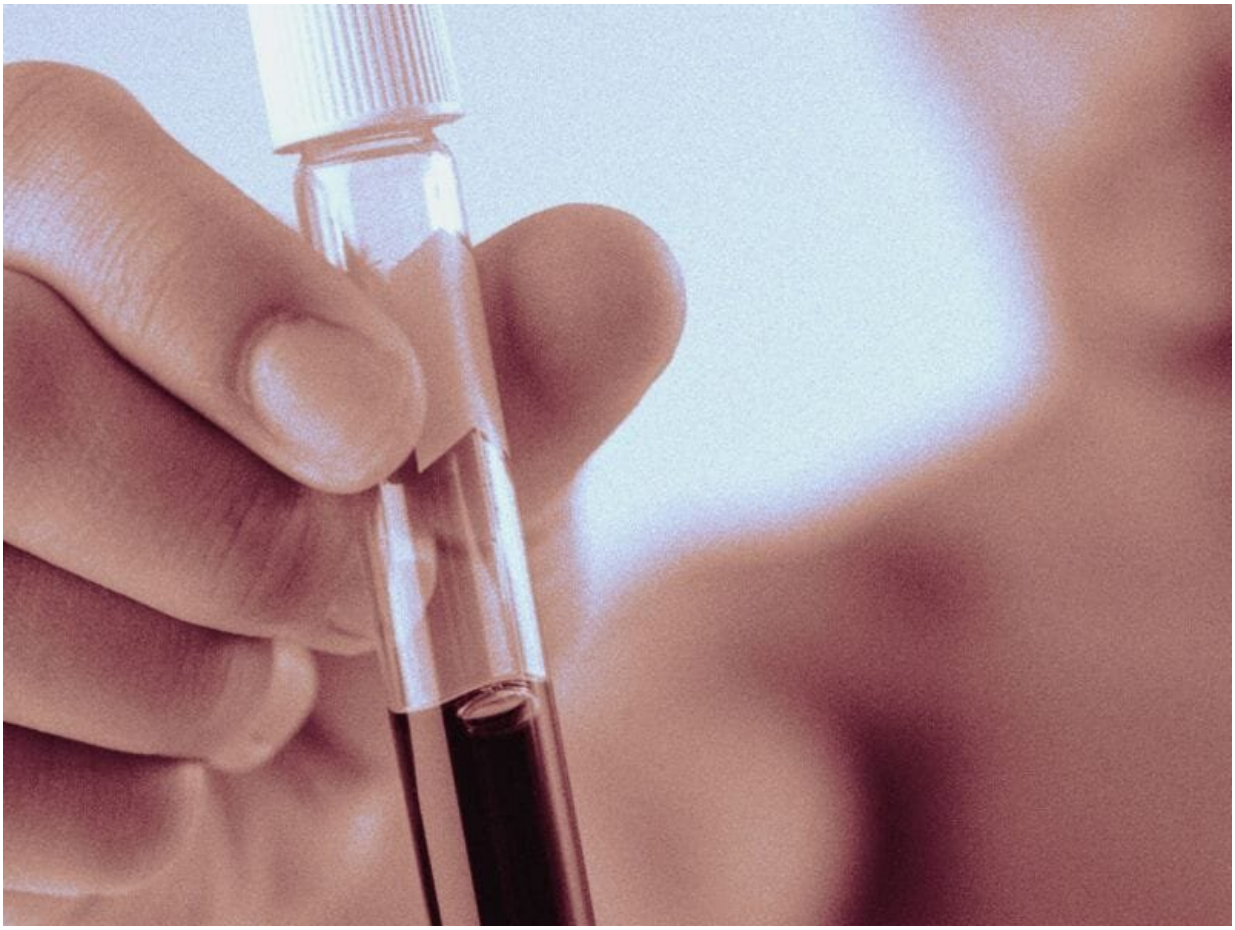

(HealthDay)—Plasma β-amyloid (Aβ)42/Aβ40 corresponds with

amyloid positron emission tomography (PET) status, according to a study published online Aug. 1 in *Neurology*.

Suzanne E. Schindler, M.D., Ph.D., from the Washington University School of Medicine in St. Louis, and colleagues measured Aβ42/Aβ40 in plasma and cerebrospinal fluid (CSF) samples obtained from 158 mostly cognitively normal individuals within 18 months of an amyloid PET scan.

The researchers identified high correspondence for plasma Aβ42/Aβ40 with amyloid PET status (receiver operating characteristic area under the curve [AUC], 0.88) and CSF p-tau181/Aβ42 (AUC, 0.85). There was a very high correspondence for the combination of plasma Aβ42/Aβ40, age, and *APOE* ε4 status with amyloid PET (AUC, 0.94). Compared with individuals with a negative plasma Aβ42/Aβ40, those with a negative amyloid PET scan at baseline and a positive plasma Aβ42/Aβ40 had a 15-fold higher risk for conversion to amyloid PET-positive.

"More comprehensive studies are currently underway to further validate this assay in multiple large international cohorts," the authors write. "If further validated, this assay will accelerate progress towards an effective therapy for Alzheimer disease by decreasing the time, cost, and risk of drug trials, and one day enable a blood test in the clinic to identify patients who could benefit from disease-modifying treatment."

Several authors disclosed financial ties to biopharmaceutical companies, including Eli Lilly/Avid Radiopharmaceuticals, which provided partial financial support. Two authors have submitted a provisional patent application.

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