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A Biomarkers in Alzheimer's disease and Mild Cognitive Impairment Knowledge Discovery Tool – Telemakus

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Abstract

Background: Scientists everywhere are struggling to keep up with the latest published research studies, data pouring out of laboratories—those down the hall and across the world—as well as the vital content of numerous genomics and proteomics databases. These problems are especially pressing for Alzheimer's disease (AD) and Mild Cognitive Impairment (MCI) researchers where the critical findings may come from bench research, clinical trials or from seemingly unrelated animal research studies.

Objective: The goal of the Biomarkers in AD and MCI Knowledgebase is to provide time-saving tools that break this bottleneck for research and discovery.

Methods: Telemakus, a knowledgebase creation system developed by the Telemakus Research Group at the University of Washington, is being utilized to develop a knowledge resource to support research on biomarkers in AD. Extracted research findings with links to the full-text data tables and figures and relevant genomics information are displayed in a consistent format that promotes rapid literature review and the ability to "drill down" for more specific information. An interactive visualization interface provides graphical displays of research inter-relationships from documents across a domain, allowing the user to review previously reported research connections and, develop hypotheses for future research.

Conclusions: With its innovative approach to presentation of research findings the Telemakus knowledgebase system offers scientists new strategies to support knowledge discovery in the biomarkers of AD and MCI research domain. The knowledgebase is available free of charge at <http://www.telemakus.net/AD/>. The Telemakus Research Group is also interested in collaborating with other research groups to build customized domain-specific knowledgebases.