Call for Papers

Early Detection of Alzheimer's Disease: From Multiplex Assays and Imaging to AI-Based Functional Monitoring

We are pleased to invite you to participate in our Supplemental Issue on "Early Detection of Alzheimer's Disease: From Multiplex Assays and Imaging to AI-Based Functional Monitoring" which is being prepared for the *Journal of Alzheimer's Disease*.

The field of Alzheimer's disease (AD) biomarkers is moving from the detection of single disease markers to multiplex fluid and imaging assays that combine a range of disease-related features. Such assays provide comprehensive information on disease risk and progression. They can be tailored for use at the point of care, e.g., for screening in primary care or for confirmatory diagnosis in tertiary care. The application of advanced technologies, such as graphene- and nanotechnology or multimodal imaging, will benefit from machine learning and AI-based analysis. In addition to molecular markers of disease, assessment of cognitive performance, psychosocial features and activities of daily living is promising for early detection and for monitoring of cognitive and functional decline in AD. Such markers are accessible through automated, non-intrusive assessment of mobility using wearable devices, remote speech recording, and home cognitive testing using serious games for longitudinal, high-frequency monitoring of cognitive trajectories in at-risk individuals. AI-based approaches will play an increasing role in the analysis and interpretation of multi-domain digital and biomarker data based on explainable expert systems to support physicians and care people in early diagnosis and communication of disease risk.

This supplemental issue brings together work on novel methods for ultra-sensitive multiplex assays from biofluids and neuroimaging with novel technologies from digital monitoring and assistive technologies and explainable AI analyses to detect changes in cognitive and functional abilities in everyday environments.

Original research manuscripts and reviews (including systematic and narrative reviews) dealing with these specific aspects are very welcome. The submission deadline is September 30, 2024. There are no publication fees for the accepted articles in this issue. However, if wish your article to be open access, you must pay for this separately (see our website for pricing: https://www.j-alz.com/fees).

Articles should be prepared/formatted per our instructions to authors (http://www.j-alz.com/prep), and all articles will be peer-reviewed as soon as they are submitted (no delay). Submissions are through Editorial Manager: https://www.editorialmanager.com/j-alz/default2.aspx (select the section/category "Supplemental Issue: Early Detection of AD").

Once an article is accepted, it will be posted online and added to PubMed in the usual amount of time for a JAD article (no extra delay while the supplemental issue is being completed). All articles will be published in JAD with the usual indexing in PubMed, Scopus, Web of Science, etc.

We look forward to receiving contributions from your research group. Please feel free to contact us in case you have any further questions.

If you plan to submit, please notify the editorial office at editorial@j-alz.com with a tentative title to help with the planning for this issue.

Editors:

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