# PRESS RELEASE

## 2D-BioPAD holds its 3rd online project meeting

The 2D-BioPAD project held its 3rd project meeting remotely on October 24-25, 2024. The meeting brought together all partners to discuss the latest advancements, plan future work, and make key decisions for the development of the 2D-BioPAD biosensors.

The main goals of the meeting were to review the progress made in the second semester of the project - April to September 2024 - and to plan for the next phase - October 2024 to March 2025. The Project Coordinator, UP-CATRIN, gave a brief update on the project's status, highlighting that the focus is now on the development of the 2D-BioPAD biosensors, which aim to detect key biomarkers for Alzheimer's Disease (AD).

The team has made significant progress in advancing biomarker detection, having identified aptamers for the GFAP biomarker and progressing with the identification of aptamers for NfL, $A\beta40$, $A\beta42$, and p-tau217. Important progress has also been made regarding magnetic nanoparticles and their conjugation with aptamers, with some first result leading the experimentations in more complex environments. With these results, the core elements for a probe prototype have been delivered.

In parallel, the results from the development of the preliminary prototypes of the two graphene-based biosensing technologies, i.e., electrochemical and GFET, was presented, discussing implementation challenges and strategies to move forward.

Finally, partners thoroughly examined the clinical pilot studies, that are set to initiate in 2025, to ensure that both the clinical protocol and the sensors meet both regulatory and ethical standards.

The next review meeting is planned for April/May 2025, with the goal of having a working prototype ready for clinical testing by September 2025.
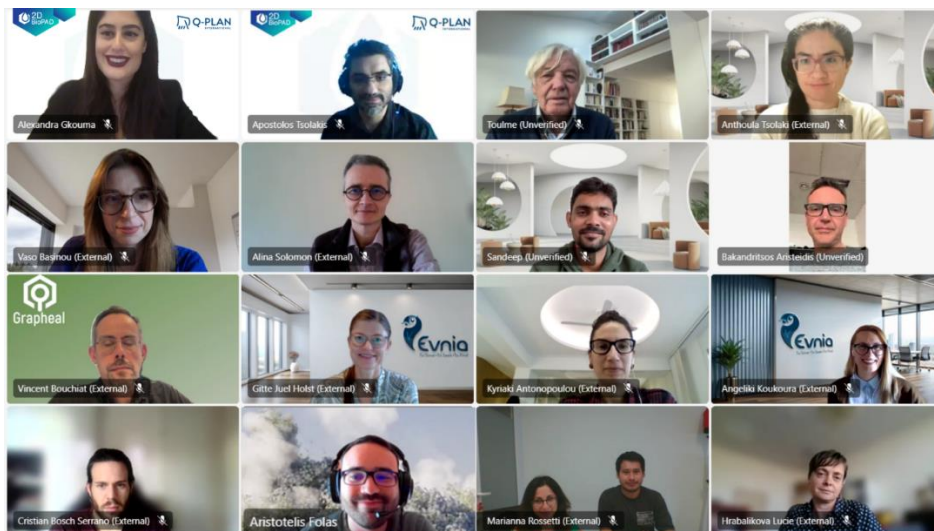


## About 2D-BioPAD

Funded by Horizon Europe under Grant Agreement No.101120706, the 2D-BioPAD aims to develop innovative diagnostic solutions for early detection of Alzheimer's Disease. Leveraging novel materials and technologies, the project seeks to make significant advancements in medical diagnostics, particularly in primary healthcare settings.