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Newsletter #2

March 2024

AI-PROGNOSIS -

Towards Parkinson's risk assessment and prognosis through AI

Newsletter highlights

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> World **Parkinson's Day**

Learn more on www.ai-prognosis.eu





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A Spotlight on AI-PROGNOSIS

Prof. Leontios Hadjileontiadis, the coordinator of the AI-PROGNOSIS project, shares insights about the **AI-PROGNOSIS** project, reshaping early detection and treatment of Parkinson's disease using innovative AI solutions.

After a decade of efforts, our evolution from the **i-PROGNOSIS** to the current **AI-PROGNOSIS** endeavour, funded by the EU, reflects a commitment to innovation in **Parkinson's care**.

The project aims to identify individuals living with Parkinson's disease without knowing it, assess **symptom progression**, and evaluate **medication efficacy**. The primary focus remains on **early detection** and **treatment**.

By combining **smartphone interactions** and **sensor data**, we aim to comprehend how Parkinson's impacts daily life. The **digital biomarkers** don't just provide insights but act as proxies for AI technology, shaping prediction and predictive models for better healthcare.



Watch the full interview **here**.



Ongoing preparation for the Digital biomarkers development, validation and verification study (dBM-DEV study)

In February 2024, the AI-PROGNOSIS project partner, Centre Hospitalier Universitaire de Toulouse achieved a significant milestone by receiving ethical approval for the Digital biomarkers development, validation and verification study (dBM-DEV study) in France.

Future steps include obtaining ethical approvals for Germany, the UK and Spain. The first patient enrolment is scheduled for June 2024.

Abouty the study:



REM behaviour disorder (RBD) is the **best predictor for neurodegenerative diseases** with synuclein pathology, including Parkinson's disease (PD). RBD affects 0.5-1 % of the general population. It can only be diagnosed by polysomnography, which is a cumbersome procedure that cannot be used for screening.

An RBD screening questionnaire (RBDSQ) with high sensitivity but low specificity has been developed. Thus, digital assessments can potentially be used to identify people with a high probability of RBD for polysomnography to facilitate the detection of prodromal PD.

The study will be conducted on 90 participants who will undergo **daily-life digital biomarker tracking**. It is anticipated that the identification of robust dBMs in this study will have a favourable impact on the PD community in the future by enabling the daily-life detection and monitoring of PD symptoms, including the early signs of the disease, such as RBD.



Read more: <u>https://www.ai-prognosis.eu/news/ai-prognosis-dbm-dev-study-received-ethical-approval-in-france</u>

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Trustworthy AI framework

A recent **AI-PROGNOSIS milestone**, achieved through collaborative efforts, involves creating a comprehensive **framework** outlining guidelines, methods, standards, procedures, tools, and metrics throughout the AI system's lifecycle. The framework, which adheres to the principles of trustworthy AI, is crafted based on the Assessment List for Trustworthy Artificial Intelligence (ALTAI) requirements.

Read more:

<u>https://www.ai-prognosis.eu/news/ai-</u> prognosis%3A-transforming-healthcare-withtrustworthy-ai



Youtube

In January 2024, **AI-PROGNOSIS** joined the **YouTube channel** to boost its online visibility and connect with a wider audience.



Subscribe to our YouTube Channel: https://www.youtube.com/@AI-PROGNOSIS

Instagram

To strengthen our connection with the community, **AI-PROGNOSIS** joined Instagram platform.

Follow us on Instagram: https://www.instagram.com/aiprognosis/





AI-PROGNOSIS Networking activities



In February 2024, AI-PROGNOSIS initiated a collaboration to establish an ecosystem of projects funded under the call HORIZON-HLTH-2022-STAYHLTH-01-04.

Our vision is to create a robust ecosystem where each project's strength contributes to advancing healthcare and well-being. By pooling resources, knowledge, and expertise, we anticipate significant benefits for the collaborative cluster and individual project.

Find out more about the sister projects: https://www.ai-prognosis.eu/networking

Upcoming events

11 April 2024 - World Parkinson's Day

The first **World Parkinson's Day** took place in April 1997. It was set up by the European Parkinson's Disease Association (now Parkinson's Europe) and co-sponsored by the World Health Organisation (WHO). This significant date honours the birthday of Dr James Parkinson.

Learn more: https://www.ai-prognosis.eu/event-details/worldparkinsons-day



King's Parkinson's Charitable Fund INAUGURAL EVENT

On 21st June 2024, AI-PROGNOSIS will be represented at King's Parkinson's Charitable Fund INAUGURAL EVENT in London, UK. Dr Dhaval Trivedi from King's College London will represent the AI-PROGNOSIS project and share insight on AI and its role in predicting Parkinson's disease.

Learn more: https://www.ai-prognosis.eu/event-details/kings-parkinsons-charitable-fundinaugural-event







King's Parkinson's Charitable Fund INAUGURAL EVENT 21 June 2024

PETRA 2024

PETRA 2024, 26-28 June 2024: Workshop "AGENT - MultimodAl siGnal sensing/analysis, innovative interactive Environments, and persoNalized behavioral modeling for improving qualiTy-of-life". The workshop will be organised by the Centre for Research & Technology Hellas, Aristotle University of Thessaloniki, and Faculdade de Motricidade Humana in cooperation with the **iPROLEPSIS** and **AI-PROGNOSIS** projects.

Learn more: http://www.petrae.org/workshops/AGENT.html

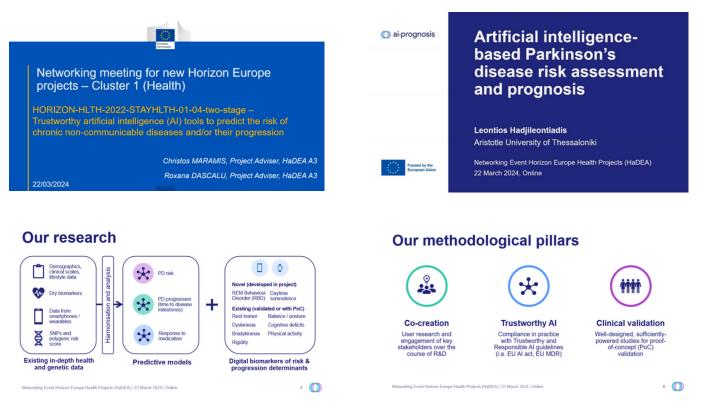
Past events

HaDEA Networking Event: Horizon Europe - Health Cluster

On 22 March 2024, **the Health and Digital Executive Agency (HaDEA)** hosted an **event addressing potential networking opportunities** among projects funded through topic 2022-STAYHLTH-01-04 – Trustworthy artificial intelligence (AI) tools to predict the risk of chronic noncommunicable diseases and/or their progression.

Read more:

<u>https://www.ai-prognosis.eu/news/driving-health-innovation%3A-insights-from-hadea's-networking-event</u>



The 13th Movement Disorders Teaching Course

On 14-16 March 2024, **the 13th International Movement Disorders Teaching Course** was held in Brasov, Romania. **Dr Dhaval Trivedi** from **King's College London** represented the **AI-PROGNOSIS** project and provided insights on artificial intelligence (AI) and the prediction of Parkinson's disease.

Learn more:

AI-PROGNOSIS at the 13th International Movement Disorders Teaching Course, Brasov, Romania



CRISP- EUROPAR Patient Group Meeting

On 20th February 2024, **Dr Dhaval Trivedi**, **AI-PROGNOSIS** project partner from **King's College London**, represented the **AI-PROGNOSIS** project at the **CRISP- EUROPAR Patient Group Meeting**, along with valuable insights and updates on the project.

Read more:

AI-PROGNOSIS represented at CRISP- EUROPAR Patient Group Meeting





King's College Hospital NHS

CRISP - EUROPAR Patient Group Meeting

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2nd Plenary meeting, Leuven Belgium

On 18-19 January 2024, **the AI-PROGNOSIS consortium met in Leuven, Belgium, for the second plenary meeting**. Over two highly productive days, partners reviewed the status of work packages and planned the next steps towards advancing Parkinson's disease diagnosis and care through novel predictive models combined with digital biomarkers from everyday devices.

More info:

https://www.ai-prognosis.eu/news/ai-prognosis-2nd-plenary-meeting-successfully-closed-









The 4th National Congress of Parkinson's Disease and Movement Disorders

On 9-11 November 2023, **Dr Dhaval Trivedi from King's College London**, represented the **AI-PROGNOSIS** project at the 4th National Congress of Parkinson's Disease and Movement Disorders, the event organised by the Parkinson's Disease and Movement Disorders Society, the Pro Neurology Association and the Transilvania University of Brașov.

Read more: <u>https://www.ai-prognosis.eu/news/ai-prognosis-presented-at-the-4th-national-congress-of-parkinson's-disease-and-movement-disorders</u>



