

### **Newsletter #6**

**April 2025** 

# **AI-PROGNOSIS -**

# Towards Parkinson's risk assessment and prognosis through Al



Newsletter highlights

World Parkinson's **Day 2025** 

Knowledge Base

**Project** Video

**Events and Networking** 

Learn more on www.ai-prognosis.eu













AI-PROGNOSIS receives funding from the European Union under Grant Agreement No. 101080581.





# Project updates

## World Parkinson's Day 2025

April is Parkinson's Awareness Month, and on **11 April 2025, we marked World Parkinson's Day.** To highlight this occasion, the Al-PROGNOSIS project took part in several activities — including sharing videos from project partners, participating in events, and being featured by the European Health and Digital Executive Agency (HaDEA).

# Project Video: How Al-PROGNOSIS Is Advancing Parkinson's Care

Led by Project Coordinator Prof. Leontios Hadjileontiadis (Department of Biomedical Engineering and Biotechnology, Khalifa University, Abu Dhabi, UAE; and Aristotle University of Thessaloniki, Greece), partners from KU Leuven, CHU Toulouse, Squaredev, Uppsala University, and SmartSol shared how the project is working to:

- 1 Develop AI models to predict Parkinson's disease risk, progression and medication response
- Run clinical studies using smartphones and wearables
- Co-design digital tools with patients and professionals
- 🕉 Build a trustworthy digital health ecosystem for Parkinson's screening and care



Watch the video **here**.





### Clinician's View: Dr Mónica M. Kurtis on Personalised Parkinson's Care

Dr Mónica M. Kurtis (Foundation for Initiatives in Neuroscience, Spain) shares her vision for a future of precise, personalised Parkinson's treatment — and how Al-PROGNOSIS is helping make that future possible.

Watch the video here.



# Featured by HaDEA

The European Health and Digital Executive Agency (HaDEA) published a spotlight article on Al-PROGNOSIS, showcasing how the project is using AI, wearable tech, and co-creation to improve early detection and optimise care.

**Read** the full article. Watch HaDEA's video.

#### **Events in Dresden**

On 11-12 April 2025, to mark World Parkinson's Day, project partner Technical University of **Dresden** (Germany) presented AI-PROGNOSIS at two dedicated events in Dresden:

- Parkinson Patient Day 2025 (11 April) a public event aimed at informing and empowering people living with Parkinson's disease.
- PANOS Network Meeting 2025 Sponsors & Therapists (12 April) - a professional gathering focused on collaboration and innovation in Parkinson's care.



These events created opportunities to connect with patients, therapists, and clinicians - sharing the project's goals and listening to those at the heart of its mission.





### **AI-PMP Study: Study Protocol Submitted in France**

The Al-based Progression and Medication Response Prediction (Al-PMP) study initiation is in progress. On 15 April 2025, the first study protocol was submitted for ethics approval by CHU de Toulouse in France.

Submissions in Spain (Foundation for Initiatives in Neuroscience) and Germany (Technical University of Dresden) are currently in progress.

The Al-PMP study is a multi-centre, proof-of-concept study. It aims to:

- Validate AI models that predict Parkinson's disease (PD) progression and medication response
- Provide preliminary evidence of clinical utility
- Evaluate the usability of the mAI-Care and mAI-Insights apps by people with PD and healthcare professionals

The PD progression model uses a combination of clinical, phenotypic, genetic, and digital biomarker data gathered from daily life to forecast disease evolution. The AI-PMP study will contribute to the clinical validation of AI models aimed at supporting Parkinson's care.

Read more.

### dBM-DEV Study: Participant Recruitment Progress

The Digital Biomarkers Development, Validation, and Verification (dBM-DEV) study is progressing steadily with participants recruitment active across all clinical sites: CHU de Toulouse in France, Foundation for Initiatives in Neuroscience in Spain, and Technical University of Dresden in Germany.

To date, **32 participants** have been recruited. The study focuses on developing digital biomarkers (dBMs) to track Parkinson's disease (PD) symptoms, particularly REM sleep behaviour disorder (RBD) and daytime sleepiness.



participants have been recruited





# **Interviews**

#### Interview with Prof. Maarten de Vos

**Prof. Maarten de Vos** from KU Leuven shares insights into how Al and digital biomarkers are reshaping Parkinson's disease care, a key focus of the Al-PROGNOSIS project. Traditional diagnosis and monitoring methods rely on periodic clinical assessments, which may not fully capture symptom fluctuations or individual differences. **Al-PROGNOSIS aims to bridge this gap by leveraging everyday digital technologies** to improve detection, assessment, and prognosis.



Watch the full interview.

# **Knowledge Base**

**The AI-PROGNOSIS Learning Hub** offers educational resources to raise awareness about Parkinson's disease and support informed engagement with emerging technologies.

#### **New Article on Al Robustness**

A new summary article explores the paper "A.I. Robustness: A Human-Centered Perspective on Technological Challenges and Opportunities" by Andrea Tocchetti and colleagues.

It covers key themes such as:

- Building reliable AI in unpredictable settings
- A framework for categorising robustness strategies
- The role of human-centred approaches in improving AI safety

These insights align with AI-PROGNOSIS goals to create trustworthy, human-focused AI for healthcare.









#### Parkinson's disease & Al Dictionary

The AI-PROGNOSIS Learning Hub features a growing Dictionary that provides clear and concise explanations of terms related to Parkinson's disease and Artificial Intelligence (AI).



Whether you are looking to understand clinical terminology or the basics of AI in healthcare, the Dictionary is a helpful resource for improving health and digital literacy.

Explore definitions under two categories:

- Medical-Related Terms
- Al-Related Terms

**Visit** the Dictionary on the Learning Hub.

# **Events**

## Dreiländertagung 2025

26-29 March 2025, Salzburg, Austria

Al-PROGNOSIS was introduced at **Dreiländertagung 2025**, the 13th Trilateral Epileptology Meeting, held jointly by the German and Austrian Societies for Epileptology and the Swiss Epilepsy League.

**Dr Arnfin Bergmann** and **Niloofar Tavakoli** from **NeuroTransData GmbH** engaged with congress participants to present the Al-PROGNOSIS project and its approach to using artificial intelligence and digital biomarkers to support improved care for Parkinson's disease.

While the event primarily focused on epilepsy, it also brought together neurologists from a range of fields — creating a great opportunity to share the project's goals with experts involved in Parkinson's and other neurological conditions.









#### **Health Data Summit 2025**

18-19 March 2025, Brussels, Belgium

At Health Data Summit 2025, held on March 18–19 in Brussels and organised by the European Institute for Innovation Through Health Data (i~HD), **Stelios Hadjidimitriou**, **Senior Research Fellow at the Signal Processing & Biomedical Technology Unit – AUTH**, represented the AI-PROGNOSIS project and chaired the session: "Trustworthy AI in Digital Health: From Guidelines to Practice".

The session focused on how European research projects are putting the principles of trustworthy Alinto practice to improve digital health solutions.

As part of his contribution, Stelios Hadjidimitriou:



Presented how AI-PROGNOSIS laid the foundation for developing trustworthy AI tools for Parkinson's disease screening and care, through a comprehensive framework for both AI development and evaluation.



**Introduced an early preview of the Parkinson's disease risk assessment tool**, which is being co-designed with key stakeholders. The tool relies on known risk markers and wearable-collected data on mobility and sleep in daily life.



Was joined by other Horizon Europe projects — **TRUSTroke, STRATIFYHF**, and **iPROLEPSIS** — who also presented how they are developing reliable and trustworthy digital health tools.

The session drew more than 50 attendees and received very positive feedback, highlighting the growing interest and support for integrating trustworthy Al into healthcare.









# **Networking activities**

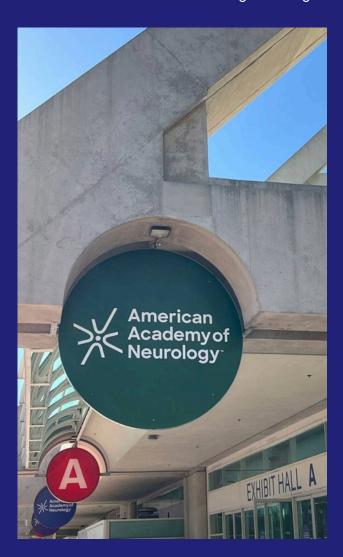
5-9 April 2025, San Diego, USA

## **AAN 2025 Annual Meeting**

**Dr Arnfin Bergmann from NeuroTransData GmbH,** highlighted the Al-PROGNOSIS project during networking and informal discussions at the AAN 2025 Annual Meeting, hosted by the American Academy of Neurology.

Although not part of the official programme, the event provided a valuable opportunity to connect with international professionals and share the goals and progress of Al-PROGNOSIS in the field of Parkinson's disease.

The Annual Meeting brought together over 14,500 neurology professionals from 110 countries and all 50 US states, alongside 300+ exhibitors, for a dynamic week of scientific exchange, innovation, and global collaboration aimed at advancing neurological care.









1–5 April 2025, Vienna, Austria

### **AD/PD 2025**

**Dr. Arnfin Bergmann MD, CEO of NeuroTransData GmbH,** had the opportunity to introduce the Al-PROGNOSIS project during conversations with participants at the AD/PD 2025 International Conference on Alzheimer's and Parkinson's Diseases and related neurological disorders.

Although not part of the official program, the project **gained visibility among international experts** attending one of the most prominent events in the field of neurodegenerative disorders. The AD/PD 2025 conference gathered researchers, clinicians, and industry leaders to explore the latest breakthroughs in treatment, translational research, early diagnosis, drug development, and clinical trials in Alzheimer's, Parkinson's, and related neurological conditions.





# **Upcoming Events**

## 5th Plenary meeting

19-20 May 2025 Thessaloniki, Greece

