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# PROLEPSIS

Horizon Europe-funded project developing a novel personalised digital care ecosystem for people with PsA

## iPROLEPSIS project newsletter | Issue No. 7 January 2025

Welcome to the 7th edition of the iPROLEPSIS project newsletter! In this issue, we highlight the insights on the future of digital biomarkers in rheumatology care, offer key information about PsA and practical advice to improve daily life, update about past events

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Funded by  
the European Union

iPROLEPSIS receives funding from the European Union under Grant Agreement No. 101095697. Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency. Neither the European Union nor the European Health and Digital Executive Agency can be held responsible for them.



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## Project updates

### Listen to Patty de Groot's Podcast Interview

**Patty de Groot** from Erasmus MC (the Netherlands) shared her insights on the **future of digital biomarkers in rheumatology care** in the latest episode of the Digital Rheumatology Network podcast.

Listen to the full episode [here](#).



Discover **how digital tools**, including findings from the iPROLEPSIS project, **are paving the way for:**



**Early diagnosis of rheumatic diseases**



**Personalised treatment approaches**



**Better care for patients**

### Initiation of the iPROLEPSIS-PDPID Study

The PsA digital phenotyping and inflammation drivers study (iPROLEPSIS-PDPID) has officially launched in **four countries:**



**the Netherlands**



**the UK**



**Portugal**



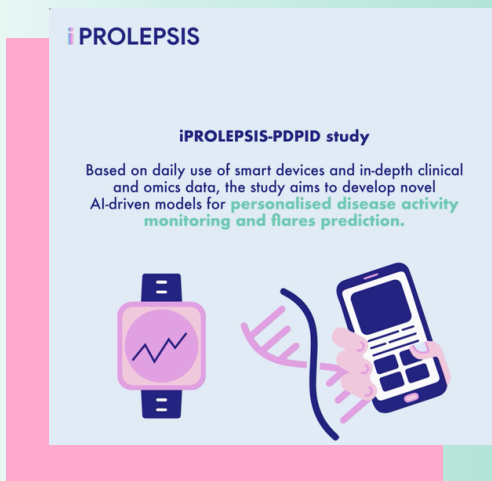
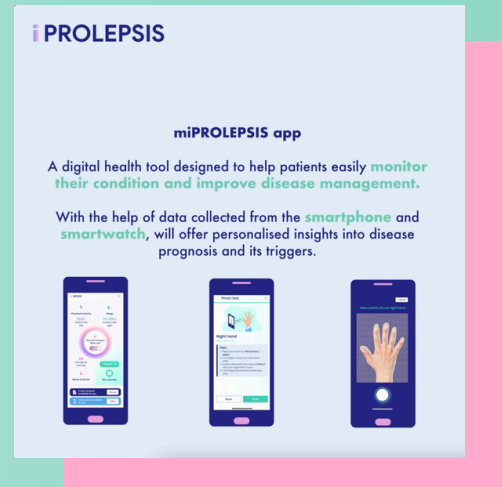
**Greece**

The first participant was enrolled in the Netherlands in early September. So far, **75 participants have been recruited**, and recruitment is steadily expanding across all sites.



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The iPROLEPSIS-PDPID study uses **smart devices and clinical data** to develop AI-driven models for personalized monitoring and flare prediction, empowering patients to better understand their condition. The study seeks **to develop unobtrusive and affordable digital biomarkers** to detect changes in disease activity, including flares, and identify their triggers in PsA patients.



The iPROLEPSIS phone app is installed on patients' smartphones and serves as a **data collection tool to develop and train algorithms**. The app tracks physical activity, sleep duration, self-registered flares, and daily records of pain, fatigue, sleep quality, and morning stiffness.

Additionally, the Garmin Vivoactive 5 smartwatch **collects data on physical activity, heart rate, heart rate variability, and sleep quality**.

## Psoriatic Arthritis Patients Handbook

Managing Psoriatic arthritis (PsA) can be challenging, which is why iPROLEPSIS has created the **Psoriatic Arthritis Patient Handbook to support your health and well-being**. The handbook is now available for download, offering key information about PsA and practical advice to improve daily life.

### What's Inside the Handbook?

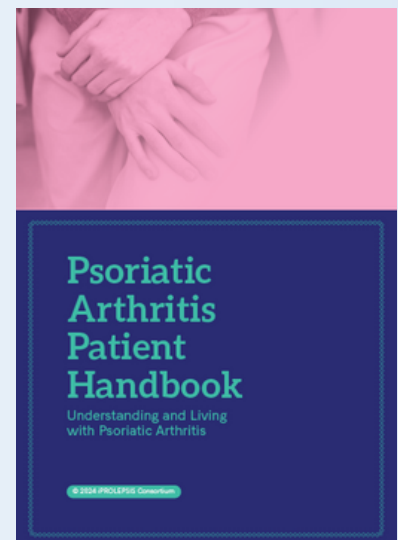
Understanding PsA and how it develops

How PsA is diagnosed and treated

Key symptoms and forms of PsA

Tips for managing symptoms

Check out [here](#).





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# Co-creation session focused on refining the Lifestyle Recommendation Engine

In November 2024, the iPROLEPSIS project hosted its **first co-creation session**, involving **patient research partners from Portugal, the Netherlands, the UK, and Greece, alongside clinicians, researchers, and developers** from the consortium.

The session **focused on refining the Lifestyle Recommendation Engine for Psoriatic Arthritis (PsA)**, gathering valuable feedback on nutrition and physical activity recommendations.

## Key insights:

### Strengths

Clear, user-friendly nutrition and exercise guidelines with tailored options for varying abilities.

### Areas for Improvement

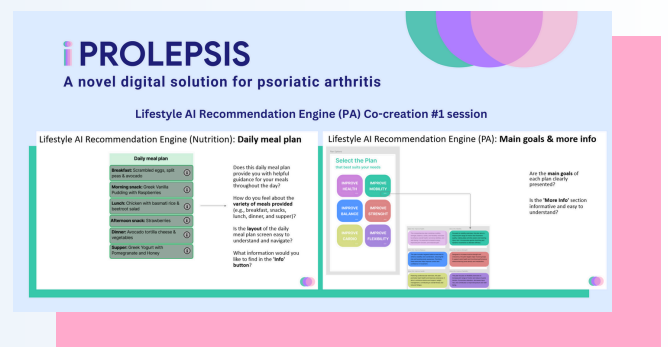
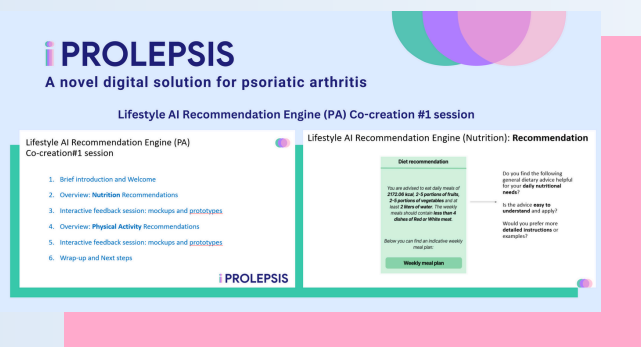
More clarity on portion sizes, meal timings, and the inclusion of diverse dietary preferences and household measurements.

### Suggestions

Customizable meal plans, low-intensity exercise options, and safety information for joint conditions.

Participants appreciated the collaborative format, and the **feedback will help shape future developments**, ensuring a more personalised, accessible tool for PsA patients.

Read [more](#).





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# Interview for Psoriasispatiënten Nederland

An interview with iPROLEPSIS partner **Patty de Groot from Erasmus MC** has been featured in **Psoriasispatiënten Nederland Psoriasis Magazine**. Psoriasis Patients Netherlands is a dedicated volunteer organisation that supports over 300,000 individuals in the Netherlands affected by psoriasis and psoriatic arthritis.

Read [more](#).

## App

Through the iPROLEPSIS Consortium, **an app is being developed to help psoriatic arthritis patients monitor their conditions using digital health tools**. Over 600 patients across four countries will track their heart rate, activity, and symptoms daily.

## Factors

**iPROLEPSIS research explores genetics, the gut microbiome, and lifestyle factors**. Collaborations with organisations like HPOS will soon enable individuals with psoriasis to contribute their data for predictive models that support earlier diagnosis.

## Patient partners

At the heart of the iPROLEPSIS study are patient partners, whose lived experiences inform our work and **ensure our tools truly support their needs**.

## iPROLEPSIS

A novel digital solution for psoriatic arthritis





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## Scientific publications

**Digital biomarkers for psoriatic arthritis: a qualitative focus group study on patient-perceived opportunities and barriers**

de Groot P., et al. (2024). RMD Open, 10:e004699. BMJ.

Read the full [publication](#).

## Article in conference proceedings

**Hot topic debate: preventing psoriatic arthritis in patients with psoriasis.**

Vivekanantham A., Alves M., Ogdie A., Soriano E.,  
Coates L. (2024). Proceedings of the 7th IFPA-WPPAC.

Read the full [article](#).

## Events



**iPROLEPSIS Games presented at the Pitch Competition during PhD Open Days**

5 November, 2024

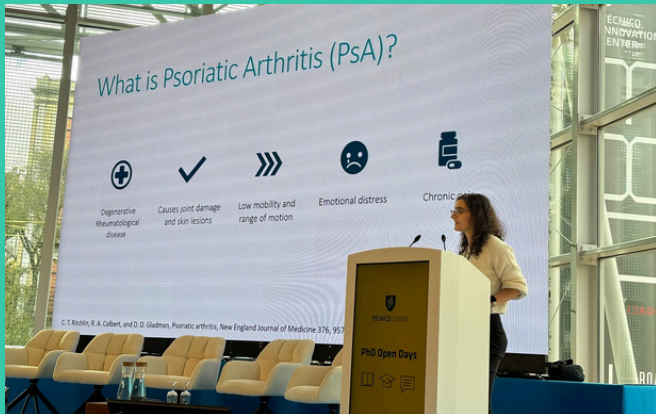
**On 5 November 2024, Bárbara Ramalho from FMH/IST-ULisboa presented the iPROLEPSIS Games at the Pitch Competition during the PhD Open Days event at the Técnico Innovation Center.**

In her pitch, **Bárbara highlighted the role of serious games** in the iPROLEPSIS project, which aims to improve the care and management of psoriatic arthritis (PsA) through a personalised, game-based digital ecosystem.





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The PhD Open Days gave **over a thousand students the chance to connect, network, and showcase their research to the academic community, industry professionals, and alumni.** The Pitch Competition was a great opportunity for researchers to present their work and meet potential collaborators.

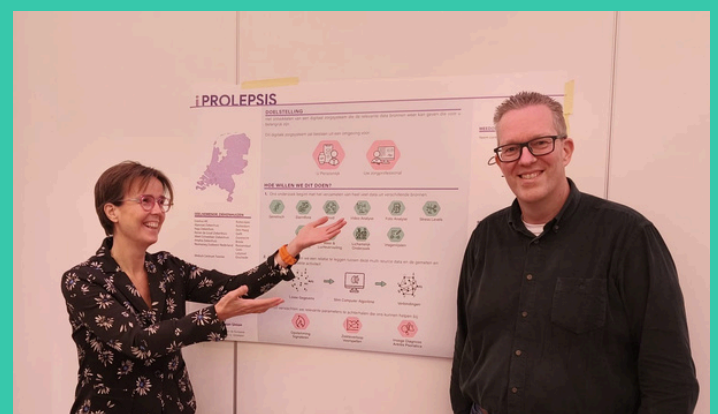


## ➤➤➤ Psoriasispatiënten Nederland Information Afternoon

9 November, 2024

**On 9 November 2024, in celebration of World Psoriasis Day, Psoriasispatiënten Nederland hosted an informative event in Nijkerk (the Netherlands). With over 90 attendees, the event offered valuable insights and fostered connections among patients, clinicians, and researchers.**

The event aimed **to offer the latest information on psoriasis and psoriatic arthritis** while fostering discussions on treatment options and research advancements. A diverse range of expert presentations and interactive sessions enhanced attendees' understanding and contributed to improving patient care.



During breaks, participants had the opportunity to visit several information stands and engage with researchers and specialists. **iPROLEPSIS** was represented by **Jolanda Luime (Erasmus MC)**, who shared insights into the ongoing research project focused on the prevention and early diagnosis of psoriatic arthritis.



## DSAI 2024

13-15 November, 2024

The iPROLEPSIS project coordinator, **Prof. Leontios Hadjileontiadis**, presented the **iPROLEPSIS Sensorimotor Games at the 11th International Conference on Software Development and Technologies** for Enhancing Accessibility and Fighting Info-exclusion (DSAI 2024). The conference was held from 13–15 November at Khalifa University in Abu Dhabi, United Arab Emirates (UAE).

**The Sensorimotor Games are interactive digital applications designed for more than just entertainment.** They combine enjoyment with skills training, social impact, and health improvement. As part of a personalised game suite, these games aim to support people living with Psoriatic Arthritis (PsA), offering a unique approach to enhancing their quality of life.





# Events

## ➤➤➤ 2nd Healthy Longevity Symposium

21-22 November, 2024

The iPROLEPSIS project coordinator, Prof. Leontios Hadjileontiadis, presented the **Serious Game Suite for Psoriatic arthritis patients** at the 2nd Healthy Longevity Symposium, held by Khalifa University in Abu Dhabi on 21-22 November 2024.



The symposium gathered leading experts to explore key topics related to longevity and aging, which is recognised as the root cause of many chronic diseases.

The event focused on the latest advancements in aging mechanisms, genomic precision medicine, rejuvenation, and social health policies. Discussions **highlighted the potential of AI, advanced technologies, and precision medicine** to address the challenges of aging, slow age-related diseases, and improve overall well-being.

## ➤➤➤ 5th Plenary Meeting

2-3 December, 2024

The iPROLEPSIS consortium met in Athens, Greece, on 2–3 December 2024, for the 5th Plenary Meeting.



Hosted by Netcompany-Intrasoft and Wellics, the event brought together partners, the External Advisory Board (EAB), and the Project Officer (PO) to review progress and plan the next steps for developing a personalised digital care system for Psoriatic Arthritis (PsA).