Newsletter #1 / August 2023

Using real-world big data from eHealth, biobanks and national registries, integrated with clinical trial data to improve outcome of severe mental disorders

Foreword

Welcome to our scientific newsletter, where you will find the advancements of REALMENT, an EU funded project I have the privilege to coordinate. Our mission is to bridge the gap between precision medicine and mental health treatment.

REALMENT is an EU project with a vision to elevate the quality of treatment for mental disorders. We harness the power of real-world data, genetic profiling, and AI to achieve this. By using extensive datasets from health records, registers, and biobanks, we merge the data results from population studies with clinical trials. This innovative approach allows us to pinpoint risk factors that impact treatment outcomes, paving the way for personalised care.

Our ambitious research through REALMENT is geared towards creating a clinical management platform. This AI-driven model could potentially predict treatment outcomes for each patient, empowering physicians to make well-informed decisions.

REALMENT learning could revolutionise personalised medicine, patient follow-up, and the exploration of alternative therapies to mitigate side effects.

In this first issue, we highlight our annual REALMENT meeting in Tallinn, where project's partners and other key stakeholders shared insights and fostered collaboration.

We have also included an interview, in which I had the opportunity to answer questions about the inception of the project and how does REALMENT plan to optimise the use of existing pharmaceutical treatments.

REALMENT's first outcomes will be published soon. Stay connected with us through our social media and don't forget to invite your network to follow this exciting project.

Dr. Ole Andreassen, Project coordinator

Featured news

REALMENT celebrated its consortium meeting in Tallinn

The REALMENT Annual Meeting 2023 successfully took place from June 19-20 in Tallinn. The event saw a gathering of international partners, both in-person and via Zoom, to discuss the progress and future plans of various work packages (WPs).

Read more ➜

REALMENT Stakeholder Forum identifies key considerations for precision psychiatry tools

Experts from various fields, including clinical researchers, mental health care providers, public authorities, people with lived experiences and patient organisations, came together to Tallinn for the REALMENT Stakeholder Forum.

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Interviews

Dr. Ole Andreassen - REALMENT Coordinator

Professor Andreassen, could you describe the key objectives of the REALMENT project and how it aims to revolutionise treatment strategies for mental disorders?

The main aim of REALMENT is to bring personalized medicine interventions to psychiatry to improve outcome for people with mental disorders. The sub-aims are to facilitate access to large amounts of Real-World Data (RWD) by developing a sustainable data infrastructure (REAL-WD platform), develop novel artificial intelligence and machine learning tools to exploit the large datasets/volumes of data and finally to combine these results to generate a clinical management platform with prediction algorithms for medication response and adverse effects in clinically helpful use cases.

Could you share the story behind the birth of the REALMENT project—what initial spark led to its conception?

The recent progress in personalized medicine approaches provides large opportunities for a range of human diseases. However, there has been little focus on developing personalized interventions in psychiatry. One of the main reasons has been the lack of large enough training data that can be used to develop prediction and stratification tools, with clinically relevant prediction accuracy. Further, there has been a lack of specific tools that can be used for psychiatric use cases. We have teamed up with partners who have access to large biobank and registry data, as well as pharma companies with clinical trial data, and machine learning expertise and formed a multidisciplinary team to move the research field forward and develop clinically useful applications in psychiatry.

Given the complexity of mental disorders and the challenge of treating affective and psychotic symptoms, how does the REALMENT project plan to optimise the use of existing pharmaceutical treatments?

The main challenge is the large variation in treatment response, with nearly one third being non-responders to first line treatments. However, we are currently using a trial and error approach in the clinic, and patients may receive inefficient treatments with severe side effects for long periods. Recent findings have shown that treatment response have a heritable component, and we will use genetic profiles to optimise the use of existing medications. In this way, we can reduce side effects and increase the effects of the treatment for patients with mental disorders. To bring about such precision psychiatry, we will make use of large data sets from electronic health records and registers, as well as new methods such as machine learning and artificial intelligence.

Read the full interview ➞

📄 Read our latest publications

- Associations Between Symptoms of Premenstrual Disorders and Polygenic Liability for Major Psychiatric Disorders

- Psychometric Properties and Diagnostic Associations of the Short-Form Community Assessment of Psychic Experiences in a Population-Based Sample of 29 021 Adult Men

- Epidemiological Overview of Major Depressive Disorder in Scandinavia Using Nationwide Registers

Discover more ➞

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📢 Upcoming events

9-13 SEPT — *11th IBRO World Congress of Neuroscience IBRO 2023, Granada*

IBRO, in partnership with global neuroscience societies, organises international congresses every four years to promote neuroscience and foster global collaboration. In 2023, the Spanish Neuroscience Society will host the 11th congress in Granada.
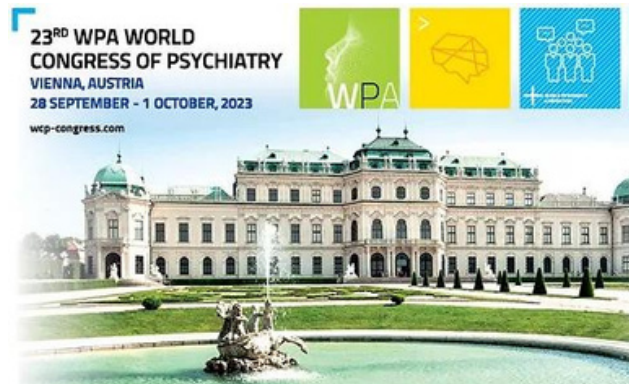
Learn more ➞

28 OCT
1 SEP

23rd WPA congress of psychiatry, Vienna

The event will examine and discuss all the crucial issues in psychiatry and mental health. The scientific program with numerous sessions and lectures that convey our present scientific and technological revolution is now available.

Learn more →

23RD WPA WORLD CONGRESS OF PSYCHIATRY
VIENNA, AUSTRIA
28 SEPTEMBER - 1 OCTOBER, 2023
wcp-congress.com

7 OCT

36th ECNP Congress, Barcelona, Spain

The 36th ECNP Congress in 2023, Europe's largest event in applied and translational neuroscience, is taking place this year in Barcelona. The event, showcases the latest in treatment research, mental health care, neuroscience discoveries, industry innovation, and public policy.

Learn more →

Find all events here →

If you have any questions or want to learn more about the project, visit our **website** or contact us by clicking on the button:

Contact us

Our Consortium

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