European Psychiatry S45

aspects such as Alzheimer's disease from the point of view of Psychiatry, the use of antipsychotic drugs or depression in neuro-degenerative diseases. The presentation will include data on these national initiatives and will address in more detail two studies using Delphi methodology referring to depression in neurodegenerative diseases. The first one addressed depression in the context of Alzheimer's disease and other dementias in 53 controversial items regarding risk factors, signs and symptoms, diagnosis and treatment. The second one addresses depression in Parkinson's disease in 49 controversial issues about the aetiopathological mechanisms, clinical features and connections with motor and non-motor symptoms, diagnostic criteria, and therapeutic options. In both cases, in addition to trying to shed light on etiological and clinical aspects, specific advice is provided on the choice of antidepressant treatment and the particularities linked to its prescription.

Disclosure of Interest: None Declared

## **SP079**

## Are New Technologies suitable for Real-World Management of Dementia?

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Abstract: The management of dementia presents significant challenges due to the multifaceted nature of major neurocognitive disorders, encompassing cognitive impairments, behavioral and psychological symptoms, and loss of autonomy. Current strategies, including pharmacological and non-pharmacological approaches, have shown limited success, often hindered by adverse effects, lack of efficacy, and insufficient human resources. In this context, emerging technologies offer promising solutions for improving dementia care. Their potential benefits and limitations will be presented: Digital Solutions • Serious Games and Smart Apps: Digital tools can enhance cognitive function and support social engagement for individuals with dementia. Studies show that structured use of these technologies in home settings improves wellbeing and reduces isolation. Internet of Things (IoT) • Applications: IoT devices such as sensors, GPS trackers, cameras, and wearable technologies are increasingly used to monitor aspects of dementia care. These include activities of daily living (ADLs), sleep patterns, medication adherence, vital signs, and safety concerns like fall detection and wandering.

Disclosure of Interest: None Declared

## **SP080**

## Inflammation in Bipolar depression: triggers and targets

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**Abstract:** Repeated reports of association of low-grade inflammation in bipolar disorder led to exploration of the causes and consequences of this inflammatory background, now thought to be due to interaction between environmental factors such as infections, stress, pollution, unhealthy life style with immune-genetic background.

Association with functional gene variants of Toll-Like Receptor genes (TLR, NOD), possibly explain diminished response to infections observed in bipolar disorder (rev in Oliveira et al, 2017) association while mitochondrial genes (Angrand et al, BBI, 2021), HLA-E and HLA-G (Boukouaci et al, 2021) contribute to maintenance of inflammation. Association with particular HLA haplotypes very likely explains pro inflammation and auto-immune induction observed particulary in bipolar patients with suicidal behavior and/or with rapid cycling (Tamouza et al, 2020). While HLA haplotypes, in particular when they are associated to anti-inflammatory effect have also been found to be associated with good lithium response (Leclerc et al, 2021).

Systemic inflammation and persistent infections activate different pathways paving the way to biomarker-guided personalized medicine. For example the identification of "autoimmune psychosis" defined by presence of anti-neuronal antibodies in psychosis and in bipolar disorder (Jezequel et al, 2017). Systemic inflammation induced by microbial infection and/or psychosocial factors can also be at the origin of the activation of human endogenous retrovirus (HERV-W) in patients with bipolar disorder (Tamouza et al, 2021). One last example can be found in the immune-metabolic abnormalities that pave the way to metabolic syndrome associated with psychiatric disorders. Various mitochondrial dysfunctions have recently been reported including deregulated bioenergetics and mitochondrial DNA alterations in bipolar disorder, underlying depressive and manic episodes and their association with metabolic syndrome.

Findings accumulated so far favour the consideration of cellular and molecular targets for the treatment of specific subgroups of bipolar disorders. This is the case for clinical trials of the efficacy of anti-inflammatory treatment in patients with blood auto-anti-bodies against brain receptors. Or for low dose IL-2 therapy in bipolar depression based on the hypothesis that IL-2 is a differentiation factor for T cells and low dose IL-2 combats premature T cell aging and induce the production of new naïve T cells from the thymus particularly T regulator cells (Leboyer et al, 2025). Another example comes from drugs that boost mitochondrial function in bipolar depression (Khandra et al, 2023).

Disclosure of Interest: None Declared