European College of Neuropsychopharmacology (ECNP)
11 May 2026

Oliver Howes's research contributions to the neurobiology of psychotic disorders recognised by the 2026 ECNP Neuropsychopharmacology Award

The European College of Neuropsychopharmacology (ECNP) is pleased to announce Oliver Howes as the recipient of the 2026 ECNP Neuropsychopharmacology Award (clinical), in recognition of his achievements in advancing the understanding of the brain changes that lead to the development of psychotic disorders and the molecular mechanisms that underly how psychotropic drugs work. The ECNP Neuropsychopharmacology Award is presented annually and recognises distinguished research in applied and translational neuroscience.

Oliver Howes is professor of molecular psychiatry at the Institute of Psychiatry, Psychology and Neuroscience (IoPPN) at King's College London, and a consultant psychiatrist at the South London and Maudsley NHS Foundation Trust.

Both in the development of new methods and in novel patient studies Oliver Howes has achieved world firsts, including the first studies to use imaging to index the dopamine system in the prodrome to psychosis, and the first studies to repeat this imaging in patients as they transitioned to psychosis, showing how higher dopamine synthesis capacity is linked to the subsequent development of psychosis. His group were also the first to show that the main dopamine abnormalities in psychosis are in the nigrostriatal pathway and to develop methods to back translate the patient PET imaging findings into mouse models to test new drugs.

In the neurobiology of antipsychotic response and non-response he conducted the first studies to show the dopaminergic and glutamatergic differences between that treatment-resistant and responsive patients, providing a neurobiological explanation for why some patients do not respond to D2 blockers. In addition, by using imaging to test the synaptic hypothesis of schizophrenia, he has found evidence that synaptic terminal markers are lower in schizophrenia but not altered by antipsychotics or lithium.

More recently his group has been the first to image the effect of a number of drugs/monoclonal antibodies in patients, including testing the effects of TAAR1 agonist drugs on the striatal dopamine system in patients with psychosis, and demonstrating that patients with negative symptoms release excess frontal cortical serotonin to amphetamine. He has also developed novel analytic methods, which include new ways to meta-analyse variability to understand heterogeneity in patients which have been widely taken up by others.

By showing that the main dopamine abnormality in psychosis is in the nigrostriatal dopamine pathway his work has also played a major role in re-thinking the decades old mesolimbic dopamine hypothesis, not just changing the textbooks but leading to the identification of important new drug targets, such as TAAR1 agonists, which he has shown target this system in cellular and mouse models and now in patients with schizophrenia. The findings his group

has group has made showing that the nigrostriatal dopaminergic dopamine changes are seen in bipolar and delusional disorders as well as schizophrenia have been instrumental in revealing the transdiagnostic role of dopamine in psychosis and the common brain mechanisms that underly psychosis. Similarly, his studies on the non-response to antipsychotics have been significant in identifying a biological sub-typing of schizophrenia, and identifying brain glutamate abnormalities as a therapeutic target in people with treatment-resistant schizophrenia. This is now being tested by drug companies with drugs that target the glutamatergic system.

In announcing the award, ECNP Award Committee chair Eduard Vieta, Spain, said, "Oliver is an outstanding member of the ECNP community, recognised internationally not just for his exceptionally innovative research, but for his commitment to advancing what we are learning about the causes of mental illnesses into new and improved treatments. We congratulate him on this award!"

Oliver Howes will receive the award during the 39th ECNP Congress on 10-13 October 2026 in Munich, Germany. His plenary award lecture will be presented on Sunday, 11 October at 16.40-17.25.

###

The ECNP Neuropsychopharmacology Award recognises innovative and distinguished research achievements in applied and translational neuroscience. The award is granted each year, alternating between basic science and clinical research. The award carries a prize of €10,000, which accompanies the winner's review article in *European Neuropsychopharmacology*.

ECNP is an independent scientific association whose mission is to advance the science of the brain, promote better treatment and enhance brain health. The annual ECNP Congress attracts some 7,000 scientists and clinicians from across the world to discuss the latest advances in brain research in Europe's largest meeting on brain science. More information about ECNP, its aims and activities, can be found at www.ecnp.eu.

More information on the ECNP Neuropsychopharmacology Award can be found at: www.ecnp.eu/ena-award.

Contact:

Tom Parkhill
ECNP Press Officer
Tel. +39 349 238 8191 (mobile)
E-mail: tom@parkhill.it