

# First blood test to diagnose bipolar disorder

*A team involving researchers from Alcediag, Montpellier University Hospital, Les Toises Psychiatry Centre in Lausanne and Professor David J. Kupfer from the University of Pittsburgh identified and validated a combination of blood biomarkers specific to bipolar disorder. These results, recently published in the leading scientific journal Nature, have led to the development of the first diagnostic blood test for this disorder that affects more than 60 million people worldwide.*

**Montpellier & Paris, France, Thursday, June 9th, 2022.** Alcediag, a French company specializing in precision psychiatry and a pioneer in biological diagnosis in mental health, announces the publication, in *Nature: Translational Psychiatry*, of a study that identified a panel of six blood biomarkers, major hallmarks of bipolar disorder.

While the number of people suffering from depression is estimated at 300 million worldwide, up to 40% of them could actually be affected by bipolar disorder. This chronic disorder is characterized by alternating depressive and manic phases. The depressive phases are similar to the so-called unipolar depression making the diagnosis complex and lengthy. As a result, diagnostic delays are significant, exceeding 7 years on average. Yet, the management and treatments for bipolar disorder and depression differ significantly, making timely and reliable diagnosis paramount.

For the first time, the study led by Alcediag, including a cohort of 410 subjects, provides such a reliable, accurate test capable of differentiating the depressive phases of bipolar disorder from unipolar depression. This test, with high diagnostic performance, specificity and sensitivity greater than 80%, is made possible thanks to the combined use of RNA editing and artificial intelligence (AI). The 6 biomarkers identified match modifications in the RNA sequence of genes associated with bipolar disorder.

The work presented here is continued by a European project called EDIT-B, named after the test, and supported by *EIT Health (European Institute of Innovation and Technology for Health)*. This project aims at regulatory validation according to the European regulation IVDR 2017/746. Launched in March, this public-private partnership brings together Alcediag, the Centre of Psychiatry of the Copenhagen region in Denmark (Prof. L.Kessing), the Clinical Hospital of Barcelona and its foundation Hospital Clínic de Barcelona and Fundació Clínic per la Recerca Biomèdica (Prof. E.Vieta), the GHU Paris Psychiatry & Neurosciences (Prof. C.Henry), the Hospital Parc Sanitari Sant Joan de Déu and its Fundació Sant Joan de Déu Foundation (Prof. JM.Haro), ProductLife Group and Synlab.

*“I am happy and proud to see this paper published in Nature Magazine’s journal of Translational Psychiatry,” said Dinah Weissmann, Alcediag’s Deputy CEO. “The importance of our team’s work is in harnessing the power of RNA editing, a mechanism which regulates RNA stability,*

*splicing, gene expression and protein synthesis to create a high-performance test that is able to differentiate between Unipolar Depression (UD) and Bipolar Depression (BD), thus paving the way to faster and more accurate diagnosis”.*

*Professor Emeritus David Kupfer of the Department of Psychiatry at the University of Pittsburgh School of Medicine (USA) and chair of the DSM-5 planning committee adds:*

*“I have mentioned before how important it is for psychiatrists treating patients to be able to provide an accurate diagnosis as quickly as possible, so that the right treatment can begin as soon as possible,” . I am honored to have been a part of the research that makes, for the first time, a high-performance test to accurately diagnose Bipolar depression a reality”.*

*Jean-Philippe Lang, Psychiatrist at Les Toises Psychiatric and Psychotherapy Center and expert advisor for Alcediag noted: “I am proud of Alcediag and the research team’s achievement in showing clinical evidence that EDIT-B, a high-performance test, is able to differentiate Unipolar from Bipolar depression and help clinicians in psychiatry deliver a more precise diagnosis faster to their patients, thereby improving the overall cycle of care and outcomes for them”.*

### About Alcediag:

Alcediag is an innovative diagnostics company focusing on mental health, developing a platform harnessing cutting-edge molecular biology and Artificial Intelligence to discover and utilize new proprietary RNA editing based biomarkers in clinical routine. Alcediag is a subsidiary of Alcen, an industrial diversified French group with a strong focus on innovation advancing societal challenges.

For more information visit: [www.alcediag-alcen.com](http://www.alcediag-alcen.com)

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