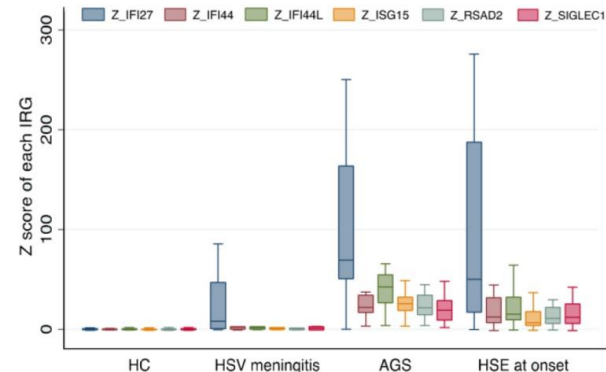


👉 **Blood biomarker** to rule out or diagnose herpes simplex encephalitis (HSE).



? CLINICAL NEED

Herpes Simplex Virus (HSV) Encephalitis (HSE) is the leading cause of sporadic **encephalitis**. Currently, diagnosis depends on cerebrospinal fluid (CSF) PCR testing, requiring invasive **lumbar punctures** and **hospital admissions for all suspected cases**. However, many patients with encephalopathy have alternative, non-HSE causes, leading to unnecessary treatments, procedures and admissions. Moreover, **25% of patients with confirmed HSE will develop autoimmune encephalitis (AE)** within 1-2 months following HSE. Distinguishing between AE post-HSE and the recurrence of residual deficits or new symptoms from persistent viral infection can be difficult, often delaying critical treatment decisions.

💡 SOLUTION

We have identified a **blood interferon (IFN) signature** as a **non-invasive** tool for **diagnosis** of HSE at acute stage or to **rule it out** in patients with **encephalopathy** in less than 1h; while also **predicting the risk of developing autoimmune neurological complications**.

🧩 LOOKING FOR...

Partners for **license agreement** or **co-development**.



THE TEAM



Dr. Thais Armangué
Accredited researcher



Dr. Josep Dalmau
Group Leader



COMPETITIVE ADVANTAGE

Current **diagnostic** methods rely solely on **PCR testing of CSF**, an invasive and time-consuming procedure. A negative blood IFN signature can rule out severe viral encephalitis, allowing clinicians to quickly and confidently **exclude this condition** (results in <1h). This test could be implemented as **the first step in the diagnostic pathway** for patients with encephalopathy, a condition that accounts for approximately 10% of all **emergency department** consultations.



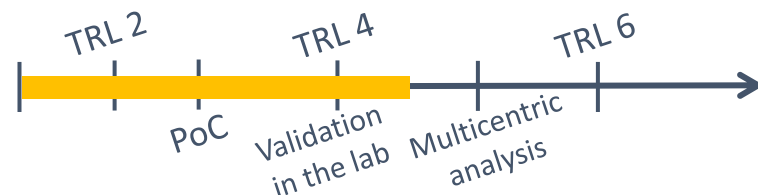
INTELLECTUAL PROPERTY

European patent (EP23382663.5) application was filed on June 2023 and further PCT/EP2024/068169 was filed on June 2024. Applicants: FRCB-IDIBAPS, HSJD and ICREA.



DEVELOPMENT

The **Proof of Concept** has been successful, and the team is on **TRL4**: validation in the laboratory. Nowadays, the team is still working to **improve** this diagnostic tool and validate its **clinical applicability**.



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