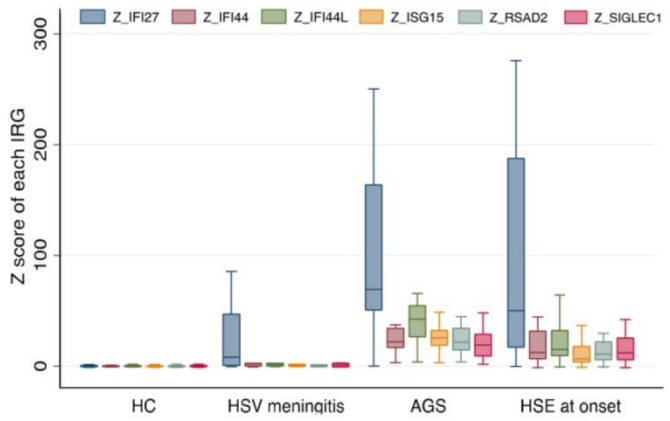
ISHSE

IFN signature in HSE and related complications



👉 Biomarker for herpes simplex encephalitis and neurologic complications.

CLINICAL NEED / NEED

Herpes simplex encephalitis (HSE) is the most frequent sporadic infectious encephalitis, with an incidence of 2-4 cases per million persons each year. In addition to sequelae caused by the infection, more than 25% of patients develop **new neurological symptoms within 1-2 months after HSE**, many of them in association with auto-antibodies against neuronal surface proteins (or autoimmune encephalitis [AE] post-HSE). **Distinction between AE post-HSE** and recrudescence of residual deficits or new manifestations related to persistent viral infection is difficult and may withhold treatment decisions.

Currently, there are no reliable **blood biomarkers** to diagnose this infection and/or predict these neurologic complications.

SOLUTION

We have identified that the determination of the **blood interferon (IFN) signature** is useful for the differential diagnosis of HSE and their potential infectious or autoimmune neurological complications.

LOOKING FOR...

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

COMPETITIVE ADVANTAGE

Actual diagnostic tests are only based on performing a **PCR on cerebrospinal fluid** (invasive method). A positive PCR does not allow to distinguish between encephalitis and a meningitis, and false negative results are common during the first 3 days of the infection.

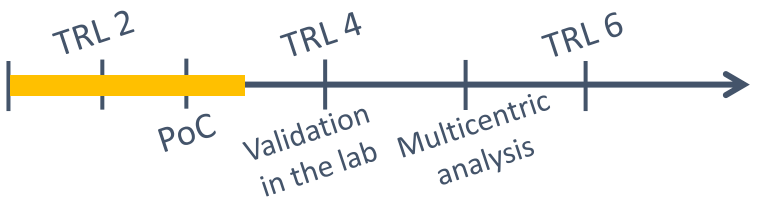
The blood IFN signature is a potentially useful complementary test for the diagnosis of HSE and its complications. It has the potential to be widely used in these clinical settings.

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 working to achieve **TRL4**: validation in the laboratory.



THE TEAM

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