

## Diagnosis of Lyme disease in the early stage of the disease

### Development status

#### Phase 3

**Technology validation and implementing it in real environment.** Testing the technology outside of the laboratory and its adjustment to external conditions.

### Challenge

Although Lyme disease is one of the most intensively studied, tick-borne diseases, there is still no vaccine that can reliably protect against this infectious disease. Current tests use markers of later stages of the disease, have an efficiency of about 70% and are unable to detect its early stages. Lyme disease does not die directly, but if diagnosed late, spirochetes are able to settle in the body, such as joint fluid and cause health problems for patients and risk re-emergence if the patient's immunity is weakened.

### IP protection status

not applicable

### Description

Diagnostic kit for early diagnosis of patients infected with Lyme disease. Identification and testing of markers of early stage disease allows shortening of treatment and reduction of relapses. Main benefits

- The diagnostic kit is able to detect diseases with higher efficiency than currently used tests.
- Allows you to diagnose a patient faster after a tick infection, especially in those cases where the patient is infected with the rare pathogens *Borrelia*.
- This test is ultimately able to save on patient treatment costs, as early and accurate diagnosis will shorten treatment and reduce relapses and chronic disease states.

### Partnering strategy


*Collaboration*



### Commercial opportunity

Medicine / diagnostics, so-called rapid tests (lateral flow, etc.)

### Institution

**BIOLOGICKÉ  
CENTRUM  
AV ČR, v. v. i.  
Biology Centre of the Czech  
Academy of Sciences**