LICENSING OPPORTUNITY:

Immune biomarkers for diagnosis, prognosis and therapy response in rheumatoid arthritis

BACKGROUND INFORMATION

Rheumatoid arthritis (RA) is a common autoimmune disease, characterized by chronic inflammation of synovial joints, often resulting in joint destruction.

One third of patients has a negative blood test for current diagnostic biomarkers. For early RA patients (diagnosis <1 year) there is a window of opportunity for treatment but sensitivity of current biomarkers is even lower. There are no biomarkers for therapy response.

Hasselt University has discovered and validated UHRA.1 and UHRA.21, 2 new plasma biomarkers for diagnosis, prognosis and therapy response in rheumatoid arthritis.
**COMPPELLING RESULTS**

**Diagnostic potential:**
- UH-RA.1 and UH-RA.21 panel has a combined sensitivity of 19-33% and specificity of 82-84%.
- Combined with RF & ACPA the UHRA panel could reduce the serological gap from 38 to 31%.
- When including IgM-specific testing for UH-RA.1 seronegative % drops to 25.

**Prognostic and theranostic potential:**
- Anti-UH-RA.21 antibody levels associated with inflammation and erosions.
- Decrease in titers in patients on DMARD.

Baseline anti-UH-RA.1 antibody levels associated with remission at week 16 (Mann Whitney p value 0.0011):

**KEY FEATURES AND ADVANTAGES**

- Diagnostic value of biomarkers validated in three independent cohorts (n=1114).
- Research ELISA assays translated to high-throughput peptide ELISA assays.
- Possibility to diagnose patients earlier and start treatment sooner.
- Possibility to monitor the efficacy of (new) treatments (to be tested for each treatment separately) – the experienced UHasselt team is open for collaboration on this.
- Hasselt University has a strong IP protection for UH-RA.1 and UH-RA.21 in the EU and US.

**MARKET POTENTIAL**

Worldwide, RA affects approximately 1% of the population. In the US, nearly US$128 billion is spent each year in medical care and direct expenses. Using our biomarkers, the 5 to 10 new cases per 10,000 adults can be diagnosed better (more patients, early stage), resulting in earlier treatment and better prognosis.

The use of our biomarkers as companion diagnostics enables better and personalized medicine, allowing the right treatment for the right patient.

**OUTSTANDING OPPORTUNITY**


Hasselt University is searching for interested parties to complete development and commercialization.

**BUSINESS DEVELOPER**

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