

EU Funded Effort to Develop New Stroke Therapies



The COUNTERSTROKE consortium led by researchers at Karolinska Institutet today (1 Oct., 2013) initiates a six million Euro EU funded collaboration to develop novel therapeutics to treat stroke.

Stroke and other conditions related to a decreased oxygen supply to the brain are the third most common cause of death in Europe. One out of three stroke incidents lead to permanent damage, and stroke is a major cause of adult disability.

The COUNTERSTROKE consortium, which consists of six European research institutions and companies, is pleased to announce the initiation of a grant funded research for developing new therapeutics in the field of stroke. The consortium has received a six million Euro grant from EU's Seventh Framework Program (FP7-Health) to develop molecules targeting the pro-inflammatory protein HMGB1.

"A key success factor for this exciting project is the network of specialists we have put together. We have expertise in the fundamental biology of HMGB1 and its role in stroke, industrial partners that can bring the biopharmaceutical into the clinic and clinicians focused on improving the care of stroke patients", comments Associate Professor Helena Erlandsson Harris, based at the Center for Molecular Medicine (CMM) and the Department of Medicine, Solna at Karolinska Institutet, and the coordinator of COUNTERSTROKE.

During the fifteen years HMGB1 has been studied, it has become evident that HMGB1 plays an important role in several inflammatory conditions, including stroke, and that a blockade of HMGB1 could reduce the symptoms. The COUNTERSTROKE project thus has the potential to be beneficial not only to stroke patients but also individuals suffering from chronic diseases such as rheumatism and lupus and also acute inflammatory conditions such as sepsis.

The consortium will develop Affibody® molecules specific for HMGB1 for the treatment of stroke.

"It is a great honor to be part of the COUNTERSTROKE consortium and we are deeply impressed by the knowledge and capacity of our collaborators. It is a privilege to contribute with drug discovery and development competence in this prestigious project", says David Bejker, CEO of Affibody AB.

The Affibody® molecules are a new class of biopharmaceuticals which mimics antibodies with regards to selectivity and strong binding to the target protein with the advantage that they are significantly smaller and are inherently inert, meaning that they do not have any functions that involve activation of the body's immune system. Thus these molecules targeting HMGB1 could become a promising treatment for stroke patients.

The novel aspect of the project is the potential to prolong the time frame for effective treatment of the stroke, which today is around four hours, in order to minimize the brain damage following the lack of oxygen supply.

The COUNTERSTROKE consortium consists of:

- Karolinska Institutet (coordinator)
- Affibody AB
- HMGBiotech s.r.l.
- University of Liverpool
- San Raffaele University
- Charité-Universitätsmedizin-Berlin

Source: [Karolinska Institutet](#)

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