

Augurex Reports Positive Data for RA Blood Test and Drug Target at the Annual European Congress of Rheumatology (EULAR)

Company's novel biomarker and drug target could represent the first personalized medicine in RA—promise for future targeted therapy in a multi-factorial disease

Vancouver, BC – May 28, 2011 - Augurex Life Sciences Corp. today reported that in London at the European League Against Rheumatism (EULAR) Conference, leading arthritis researchers presented important data on Augurex's rheumatoid arthritis (RA) biomarker blood test and novel drug target.

RA is a disease that affects approximately 10 million people worldwide; however, it can be difficult for a primary care physician to diagnose because the joint pain symptoms are common to other conditions. This often delays RA patient referral to an arthritis specialist where they could otherwise receive therapies to treat or possibly halt the disease. RA is a particularly debilitating form of arthritis that, if left untreated, results in 70% of patients developing irreversible joint damage within 2 years of symptom onset.

This blood test measures 14-3-3 η , a protein that is elevated in the blood of patients with RA while it is relatively absent in healthy people and those with other types of auto-immune conditions. The 14-3-3 η protein was evaluated in 135 RA patients and 130 controls showing that if patients were positive for the protein, they had a 5 to 50 times greater likelihood of having RA and that its levels were independent of another commonly used blood test called Rheumatoid Factor or RF. What this means is that 14-3-3 η may be combined with other blood tests to accurately capture at least 87% of patients with RA.

“The real focus in RA these days is to ensure that patients are identified, ideally early in the course of disease, so that they can get on appropriate treatments that may significantly improve their short and long-term outcome. What we are seeing in the data is that a blood test like this one, could assist in identifying more patients that may have gone longer before being diagnosed”, says Dr. Walter Maksymowych who is the lead investigator on this study, co-discoverer of 14-3-3 η in arthritis and Medical Research Professor of Medicine and Rheumatologist at the University of Alberta, Canada.

Other data presented by Dr. Maksymowych at EULAR, described what 14-3-3 η 's biological role could be in the development of inflammatory arthritis. Although the protein normally exists inside of healthy cells, in RA it is externalized and acts back on cells activating key intracellular pathways causing harmful substances such as, TNF- α , IL-6, RANKL and MMP-9 to be produced which in turn cause inflammation and joint damage. Antibody compounds targeted at the 14-3-3 η protein were shown to block its disease-related effects in cells. The uniqueness of the 14-3-3 η protein is that it's not only measurable in blood to help identify patients with RA but it seems that if you reduce its harmful biological effects with antibodies or other drugs that could inactivate this protein you may be able to treat the disease.

In RA, not unlike cancer, the development of the disease includes multiple factors that act to varying degrees in different patients. Therefore, in multi-factorial diseases like RA, targeted therapies are highly desirable that focus on the most prominent disease contributors in individual patients. “If you have a direct companion diagnostic blood test that can specifically identify patients who most need the therapy and that also gives you an indication of how well the drug is working, that's the ideal therapeutic management scenario”, states Dr. Maksymowych.

If the continued development efforts of the drug are successful then this protein may represent the first “personalized medicine” target in rheumatology. The way this would work is that, in patients who have very little, or no 14-3-3 η you would not treat them with the drug that targets the protein, while in those who have higher levels, you can dose them with the appropriate amount of anti-14-3-3 η drug to remove it from the body and use the blood test to monitor their response over time.