Argos Therapeutics Presents Transplantation Data for Soluble CD83 Demonstrating its Ability to Induce Immune Tolerance and Suppress Anti-donor Antibody Responses

- Preclinical Data Discussed in Two Oral Presentations at the American Transplant Congress -

Durham, NC– May 4, 2010 –Argos Therapeutics today announced two oral presentations detailing data on its soluble CD83 (sCD83) protein program at the 2010 American Transplant Congress, held May 1-5 in San Diego. The data, which were produced by Argos in collaboration with scientists from the University of Western Ontario, demonstrate that sCD83 is capable of inducing immune system tolerance to transplant grafts and suppressing an anti-donor antibody response, via a multi-faceted mechanism-of-action that impacts B and T cells, as well as dendritic cells.

In the first study, which received a conference Young Investigator Award, researchers sought to determine whether sCD83 can suppress an anti-donor antibody response and prevent chronic kidney allograft rejection in a preclinical model of transplantation that compared sCD83 to a sub-therapeutic dose of cyclosporine A. While transplant recipients receiving cyclosporine A developed typical features of chronic rejection, allograft recipients treated with sCD83 exhibited markedly decreased intragraft B cell infiltration, reduced Immunoglobulins M and G deposition, and significantly lower circulating anti-donor antibody levels. As a result, sCD83 successfully controlled and prevented chronic antibody-mediated allograft rejection, the most common cause of transplantation rejection, which current immunosuppressive agents fail to prevent.

In the second study, researchers tested sCD83 in a preclinical kidney transplantation model versus placebo. Treatment with sCD83 achieved kidney graft tolerance in the complete absence of anti-donor antibodies; in contrast, untreated placebo recipients demonstrated severe graft rejection. Additionally, dendritic cells from graft-tolerant sCD83 recipients exhibited significantly decreased levels of MHC II, CD40, CD80 and intracellular IL-12, all of which are important in triggering an immune response.

Hao Wang, M.D., Associate Professor at the University of Western Ontario and senior investigator for the studies, said: “Both of these studies have provided important information on the multi-faceted mechanism-of-action of sCD83, which involves direct influence on both B and T cells and indirect influence on dendritic cells. We have demonstrated that sCD83 alone is capable of inducing immune system tolerance to foreign kidney grafts, through both the generation of tolerogenic dendritic cells, which play a critical role in inducing and maintaining tolerance, and also through the expression of an enzyme known to inhibit T cell proliferation, promote T cell death, and generate regulatory T cells, all of which contribute to immune tolerance.

Charles Nicolette, Ph.D., Chief Scientific Officer and Vice President of Research and Development at Argos Therapeutics, added “The kidney graft protection offered by sCD83 is associated with inhibited B cell maturation and activation, suggesting its potential as a treatment for several immune-mediated disorders in which B cells play a significant role. Its favorable preclinical safety profile also establishes it as a promising candidate for future clinical development.”
The first abstract, titled, “Soluble CD83-Mediated Suppression of Anti-donor Antibody Response Prevents Chronic Renal Allograft Rejection,” was authored by Zhu Lan, M.D.; Wei Ge, M.D.; Jacqueline Arp, Ph.D.; Weihua Liu, M.D.; Stephen Brand, Ph.D.; Don Healey, Ph.D.; Charles Nicolette, Ph.D.; Bertha Garcia, M.D.; and Hao Wang, M.D., Ph.D.

The second abstract, titled, “Kidney Allograft Tolerance Induced by Soluble CD83 Monotherapy Associated with Prevalence of Tolerogenic Dendritic Cells and Expression of Indoleamine 2,3-dioxygenase,” was authored by Zhu Lan, M.D.; Wei Ge, M.D.; Jacqueline Arp, Ph.D.; Jifu Jiang, M.D.; Dameng Lian, M.D.; Weihua Liu, M.D.; Don Healey, Ph.D.; Charles Nicolette, Ph.D.; Bertha Garcia, M.D.; and Hao Wang, M.D., Ph.D.

About Soluble CD83
Soluble CD83 (sCD83) is a glycoprotein expressed on the cell surface of mature dendritic cells (DCs), the most potent stimulators of immune responses. The strong up-regulation of this protein during DC maturation suggests that it plays an important functional role in the induction of immune responses. Experimental data demonstrate that soluble sCD83 can potently down-regulate immune responses, indicating that it can be developed to treat transplantation rejection and a variety of autoimmune and inflammatory disorders. Importantly, data from animal models demonstrate that soluble sCD83 exerts its effects without a requirement for chronic administration and does not leave the subject globally immunosuppressed. The development of sCD83 is part of Argos’ research and development collaboration with its Canadian partner, DC Bio.

About Argos Therapeutics, Inc.
*Argos is an immunotherapy company developing new treatments for cancer, infectious and autoimmune diseases, and transplantation rejection. The Company has generated multiple platform technologies and a diverse pipeline of products based on its expertise in the biology of dendritic cells — the master switch that turns the immune system on or off.*

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