

Hansa Medical

- PRESS RELEASE -
November 10, 2015

Data showing that IdeS can silence memory B-cells published in Journal of Immunology

Hansa Medical AB (publ) today announced that results on IdeS effect on B-cells have been published in *Journal of Immunology*

The scientific article entitled "*The bacterial enzyme IdeS cleaves the IgG-type of B-cell receptor, abolishes BCR-mediated cell signaling and inhibits memory B-cell activation*", by Sofia Järnum, Robert Bockermann, Anna Runström, Lena Winstedt and Christian Kjellman, shows that IdeS not only inactivates plasma IgG but also cleaves IgG present on B-cells.

Activation via the B-cell receptor on memory cells is a critical step in the development of antibody producing cells. The now published data show that IdeS cleaves the IgG-type of B-cell receptor present on human memory B-cells. The IdeS-treated cells are temporarily silenced and prevented from developing into antibody producing cells. Furthermore, the data show that IdeS cleaves the B-cell receptor *in vivo* in humans.

"The data are conceptually very interesting and we are very pleased that our work has been accepted in this well renowned scientific journal", commented Hansa Medical's CSO Christian Kjellman.

The data suggest that IdeS treatment could have therapeutic benefits not only through the degradation of plasma IgG, but it might also delay or mute the activation of memory cells. IdeS is currently being developed for the removal of donor specific antibodies in highly sensitized patients on the waiting list for kidney transplantation. In transplantation, a delay in the activation of memory B-cells and production of IgG could help the organ to accommodate in its new host. Furthermore, the concept indicates therapeutic possibilities not only in transplantation but also in other situations where a memory B-cell response must be prevented or delayed.

(See full article in *Journal of Immunology* at <http://m.jimmunol.org/content/early/2015/11/07/jimmunol.1501929>)

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About IdeS

IdeS, a unique molecule with a novel mechanism, is a bacterial enzyme that cleaves human IgG antibodies. IdeS aims to degrade immunoglobulin G (IgG) and has been tested for safety and efficacy in numerous *in vitro* and *in vivo* models. During 2013, a Phase I clinical trial on 29 healthy subjects was conducted, demonstrating IdeS as efficacious and well tolerated with a favourable safety profile. During 2014, a Phase II study in 8 sensitized patients awaiting kidney transplantation was conducted. Preliminary data show that IdeS is effective in reducing anti-HLA antibody levels in highly sensitized patients on the kidney transplant waitlist. The study shows that IdeS has the capacity to make sensitized patients eligible for transplantation by decreasing HLA antibodies to levels acceptable for transplantation. In addition to transplantation, IdeS has potential applications in a variety of rare autoimmune diseases. IdeS is protected by several patents and results of studies with IdeS have been published in a number of peer reviewed medical and scientific journals.

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About Hansa Medical AB

Hansa Medical is a biopharmaceutical company focused on novel immunomodulatory enzymes. Lead project IdeS is an antibody-degrading enzyme in clinical development, with potential use in transplantation and rare autoimmune diseases. Other projects include HBP (a market introduced diagnostic marker for severe sepsis) and EndoS (an antibody-modulating bacterial enzyme in pre-clinical development). The company is based in Lund, Sweden. Hansa Medical's share (HMED) is listed on First North Premier in Stockholm with Remium Nordic AB as Certified Adviser.

The information in this press release is disclosed pursuant to the Securities Markets Act or the Financial Instruments Trading Act. The information was released for public disclosure on November 10, 2015, at 08.00 CET.