

Researchers identify unexpected role of Neuropilin-1

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The recent work of Dr. Jean-Sebastien Delisle of the Maisonneuve-Rosemont Hospital Research Center (CIUSSS-EMTL) affiliated with the University of Montreal, which uncovers novel immune system mechanisms, has been recognized by the highly respected *Journal of Immunology*. Indeed, the official journal of the American Association of Immunologists has ranked Dr. Delisle's article published in its November 15 issue among the top 10% of its best scientific articles.

An important step towards understanding immunity

The research of Dr. Delisle and his team has identified the unexpected role of Neuropilin-1, a membrane receptor, and the phenomenon of dendritic cell maturation, which is an essential link in the <u>immune</u> response to infection and disease. The scope of this work is considerable because it involves identifying a new target for optimizing immune responses for a large number of diseases.

Dr. Delisle's discovery is timely and will help improve the way the immune system is used to treat cancer, said Dr. Denis-Claude Roy, scientific director of the Centre de recherche Hopital Maisonneuve-Rosemont. By targeting this mechanism, we can eventually consider the possibility of improving the responses in conditions unfavourable to the immune system, especially with respect to many cancers, added Dr. Delisle.



It is not the first time Dr. Delisle's research has been recognized. Recently, his Phase 1 clinical study EBV-TCL-01, using laboratory-manipulated cells as an innovative treatment for Epstein-Barr virus-associated lymphomas, received approval from Health Canada, a first for the country.

Dr. Delisle's team is among the leading researchers at Maisonneuve-Rosemont Hospital, its Research Centre, and its Centre of Excellence in Cell Therapy, who are working to develop the therapies of tomorrow for a large number of diseases, from cancer to pathologies of the immune immune system.

More information: Nougboli A. E. Oussa et al, VEGF Requires the Receptor NRP-1 To Inhibit Lipopolysaccharide-Dependent Dendritic Cell Maturation, *The Journal of Immunology* (2016). <u>DOI:</u> 10.4049/jimmunol.1601116

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