Sp Protein Therapy Could Transform the Way We Treat Cancer

Authors: Miguel Gutierrez Justin Smith David Johnson Brittany Hodges Brittany Lewis

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Samford University

School of Cognitive Science

The use of sp proteins could transform the way we treat metastatic cancer.

Neuroblastoma, one of the most lethal forms of childhood cancer, has spread throughout the body and died due to the inability to travel through blood vessels. In this latest breakthrough, U.S. researchers have shown that sp protein therapy can inhibit the spread of neuroblastoma, enabling patients to live longer and with less serious side effects than if chemotherapy was used.

Proteins, which are manufactured naturally by cells to make complex interactions, are responsible for an enormous number of cellular activities. Sp protein is a particularly interesting protein because while it generally works as a structural part of a cell, it also has an important cellular function, which in the case of neuroblastoma means that it helps trigger cell proliferation.

Dr. Neil Schiff of Case Western Reserve University, and the stem cell biologist Dr. Ravi Pai, used a signaling pathway called MAP kinase to target neuroblastoma.

MAP kinase is an enzyme that can encourage nerve cells to self-renew and produce nerve progenitor cells (also known as progenitor cells), which make the nerves that become motor neurons or the nerves that are responsible for controlling breathing.

A crucial part of the sp protein pathway is the Hox pathway. The Hox pathway is a major signaling pathway that plays a crucial role in cancer development. Although the mechanism of the Hox pathway is still unknown, it appears to play a crucial role in developing cancer cells and providing them with nutrients and nutrients they require for growth.

The researchers went on to show that sp protein therapy, which induces motor neurons to grow and proliferate by stopping hox signaling, is extremely potent at preventing metastasis. The therapy resulted in complete regression of neuroblastoma in mice, thereby demonstrating a mechanism for preventing metastasis. More work still needs to be done to evaluate its safety and effectiveness.

Dr. Schiff is now exploring a new way to harness these proteins for cancer therapy. Dr. Schiff believes that it is possible to use the sp protein pathway in cancer therapy. Through gene editing, he believes that it is possible to modify the signals at the genetic level in order to control the sp protein signaling.

 $\hat{a} \in \mathbb{C}$ The potential of this new idea is unlimited, $\hat{a} \in \mathbb{D}$ r. Schiff concludes. $\hat{a} \in \mathbb{C}$ We have demonstrated that a single gene can control this pathway. Dr. Pai and I are now exploring other genes which may be important in regulating the Hox pathway in cancer and restoring normal growth and development. $\hat{a} \in \mathbb{C}$

Before the treatment is realized for any cancer, researchers need to conduct much more research in order to determine how effective it will be in treating patients.

For more information about brain cancers click here.



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