



UCSD researchers find inhibiting a certain hormone receptor could stall cancer growth

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SAN DIEGO (KUSI) – A group of researchers led by those at UC San Diego announced today that inhibiting a certain hormone receptor could stall cancer cell development and improve survival rates for pancreatic cancer patients.

The research team used gene-editing tools like CRISPR to get an improved view on the molecules on which pancreatic cells are dependent. Through this process, researchers identified that blocking the hormone receptor retinoic acid receptor-related orphan receptor gamma, or RORγ, slowed the growth of tumors and helped animal test subjects survive longer.

The researchers published their work in today's online issue of the journal "Cell."

"These studies revealed an unexpected role for immuno-regulatory genes in the maintenance of the most aggressive, drug-resistant cells in pancreatic cancer," said UCSD professor and senior study author Tannishtha Reya.

Pancreatic cancer is one of the most difficult forms to treat medically due to its resiliency and adaptive ability. Treatments like chemotherapy can slow tumor growth, but the cancer cells eventually develop resistance to the treatment.

Because of this, the one-year survival rate for pancreatic cancer is 20 percent and the five-year rate is only 7 percent according to data from the American Cancer Society.

The research team believes the discovery of RORγ's effect on tumor growth and suppression could eventually lead to improved and targeted treatment of pancreatic cancer.

“In fact, drugs targeting RORy have already been developed by several pharmaceutical companies, and are in trials for autoimmune diseases,” Reya said. “Our findings suggest that these agents could also be a valuable therapeutic strategy for pancreatic cancer.”

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