Navrogen Publishes Breakthrough on NAV-005, A CA125 Antagonist That Improves Antibody Cancer Therapy and ADC Efficacy

The research highlights how NAV-005 overcomes the immunosuppressive effects that tumor-produced CA125 has on antibodies and ADCs to enhance their efficacy

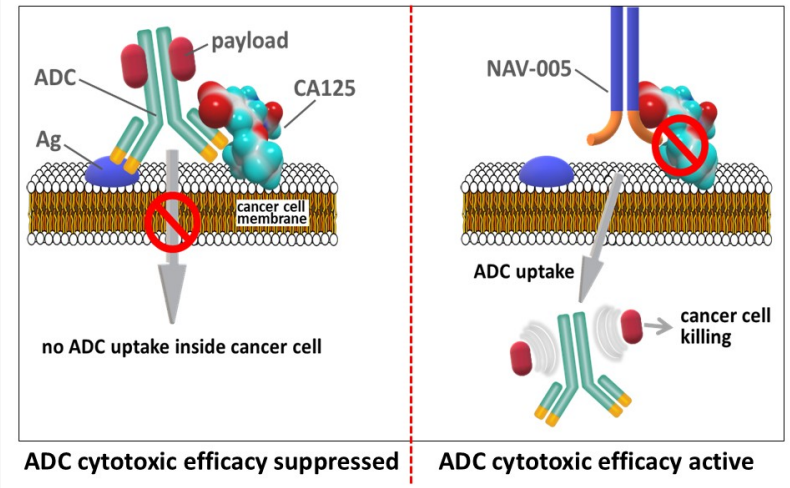
PHILADELPHIA, PA, UNITED STATES, July 7, 2026 /EINPresswire.com/ -- Navrogen, Inc., a biopharmaceutical company advancing antibody-based cancer therapies, announced new research on NAV-005, a novel immunoglobulin (Ig) fusion protein antagonist for treating cancers overexpressing the humoral immunosuppressive oncology (HIO) factor CA125. The study was published in the peer-reviewed journal BMC Cancer and can be accessed at https://link.springer.com/article/10.1186/s12885-026-16310-w.

> Navrogen's work in Humoral Immuno-Oncology has developed agents that improve antibody-based cancer treatments. NAV-005 may improve the efficacy of antibodies and ADCs treating CA125-positive cancers."
>
> *Nicholas Nicolaides, President and CEO*

The publication details how tumor-produced CA125 suppresses the effectiveness of monoclonal antibodies (mAbs) and antibody-drug conjugates (ADCs) by binding to their CDR3-framework 4 region of the Ig heavy chain. This interaction blocks key immune responses, such as complement-dependent cytotoxicity (CDC) and antibody-dependent cellular cytotoxicity (ADCC) via natural killer (NK) cells. CA125 binding to ADCs reduces their internalization into targeted tumor cells, thereby reducing its efficacy. NAV-005 counteracts these effects by liberating mAbs and ADCs from CA125 binding.

NAV-005 is a high-affinity polypeptide-IgG1 fusion protein that binds cell surface and soluble CA125, blocking its interaction with mAbs and ADCs. This neutralizes CA125's immunosuppressive effects on mAb immune effector activity and restores ADC internalization. Developed with Navrogen's proprietary Block Removed Ig Technology (BRITE) platform, NAV-005 and related therapies are designed to overcome humoral immunosuppression. These agents can be combined with approved antibody-based treatments to enhance therapeutic efficacy in CA125-positive cancers. NAV-005 is currently in preclinical development.

Dr. Nicholas Nicolaides, President and CEO, stated: “Navrogen’s work in Humoral Immuno-Oncology has led to a pipeline of novel therapies that improve antibody-based cancer treatments. NAV-005, when combined with regulatory-approved antibody-based cancer therapies, may significantly improve outcomes for patients with CA125-positive cancers. We look forward to presenting additional information on the program as it progresses towards clinical evaluation.”



NAV-005 mechanism to enhance ADC efficacy in Humoral Immuno-Oncology positive cancer target cells

About Navrogen

Navrogen is a biotechnology company dedicated to discovering tumor-produced Humoral Immuno-Oncology (HIO) factors that contribute to suppressed humoral immunity, poor prognosis, and limited responses to immune-mediated cancer therapies. The company’s mission is to develop first- and best-in-class agents that counteract the immunosuppressive effects of HIO factors by leveraging proprietary screening and engineering technologies. Navrogen also offers diagnostic assays to identify patients whose tumors produce HIO factors, helping physicians select optimal therapeutic strategies. For more information, visit www.navrogen.com.

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