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Targeting the molecules that increase platelet count in ovarian cancer may have an anti-tumor effect, says UAB researcher Charles Landen, M.D., assistant professor of gynecologic oncology and associate scientist in the Cancer Cell Biology program at the UAB Comprehensive Cancer Center.

Landen is part of a team of scientists that includes the University of Texas M.D. Anderson Cancer Center and other institutions whose research, reported today in the *New England Journal of Medicine*, examines platelets — cells within the bloodstream that play a key role in clotting.

Landen, who worked at M.D. Anderson when the research was performed, and Anil Sood, M. D., professor and vice chair for translational research at M.D. Anderson, explored platelets' role in cancer progression. The investigators reported that patients with significantly elevated platelets presented with more advanced disease and had shorter overall survival times than those whose platelets were not elevated.

They also noted that tumor cells were producing cytokines — circulating proteins that activate processes in other parts of the body — that stimulated platelet production. Most important, an antibody that blocked the cytokine Interleukin-6 prevented this message from being delivered. It reduced the platelet levels by half and reduced tumor growth when tested in mice. Alone, it reduced growth by about 50 percent; when combined with paclitaxel, a common chemotherapy agent used in ovarian cancer, it reduced growth by more than 90 percent. This antibody is being developed in clinical trials and may be an effective therapy in ovarian and other cancers.