INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN-3 (IGFBP-3) IS ASSOCIATED WITH FAVORABLE CLINICOPATHOLOGICAL FEATURES AND SURVIVAL IN PATIENTS WITH EPITHELIAL OVARIAN CANCER. Dionysios Katakas, Herbert Yu, Stefano Fracchioli, Giovanni Richiard, Savero Danese, Franco Genta, Michael A Levesque, Javad M Khosravi, Anastasia Papanastasiou-Diamandl, Giorgio Gordini, Eleftherios P Diamandis, and Marco Massarri. Diagnostic System Lab, Toronto, Canada; Louisiana State Univ, Shreveport, LA; S Anna Hosp, Turin, Italy; Univ of Toronto, Toronto, Canada; and Univ of Turin, Turin, Italy

Insulin-like growth factor binding protein-3 (IGFBP-3), a glycoprotein with specific binding affinity to insulin-like growth factors (IGFs), is able to suppress the mitogenic and anti-apoptotic actions of IGFs by blocking the interaction of IGFs with their receptor, IGF-IR. Ovarian cancer cells express IGFBP-3 as well as high levels of IGF-IR and IGF-I. To study the role of IGFBP-3 in ovarian cancer progression, we measured, by an immunoassay, IGFBP-3 concentrations in 147 ovarian cancer tissues and examined its associations with clinical and pathologic features of the disease and patient survival. Non-parametric statistics and Cox regression survival analysis were used to determine the associations of IGFBP-3 with clinical and pathologic variables, as well as with patient survival. Although IGFBP-3 was not associated with response to chemotherapy, high IGFBP-3 levels were significantly associated with favorable prognostic features of the disease, including early stage (p=0.048), small size of residual tumor (p=0.007), and optimal debulking surgery outcome (p=0.007). Low IGFBP-3 was also associated with a significantly increased risk for disease progression (RR=1.92, p=0.034), and an inverse dose-response relationship between the level of IGFBP-3 and risk for disease progression was evident (p=0.033). The